

# THE ARCHITECT & BUILDING NEWS

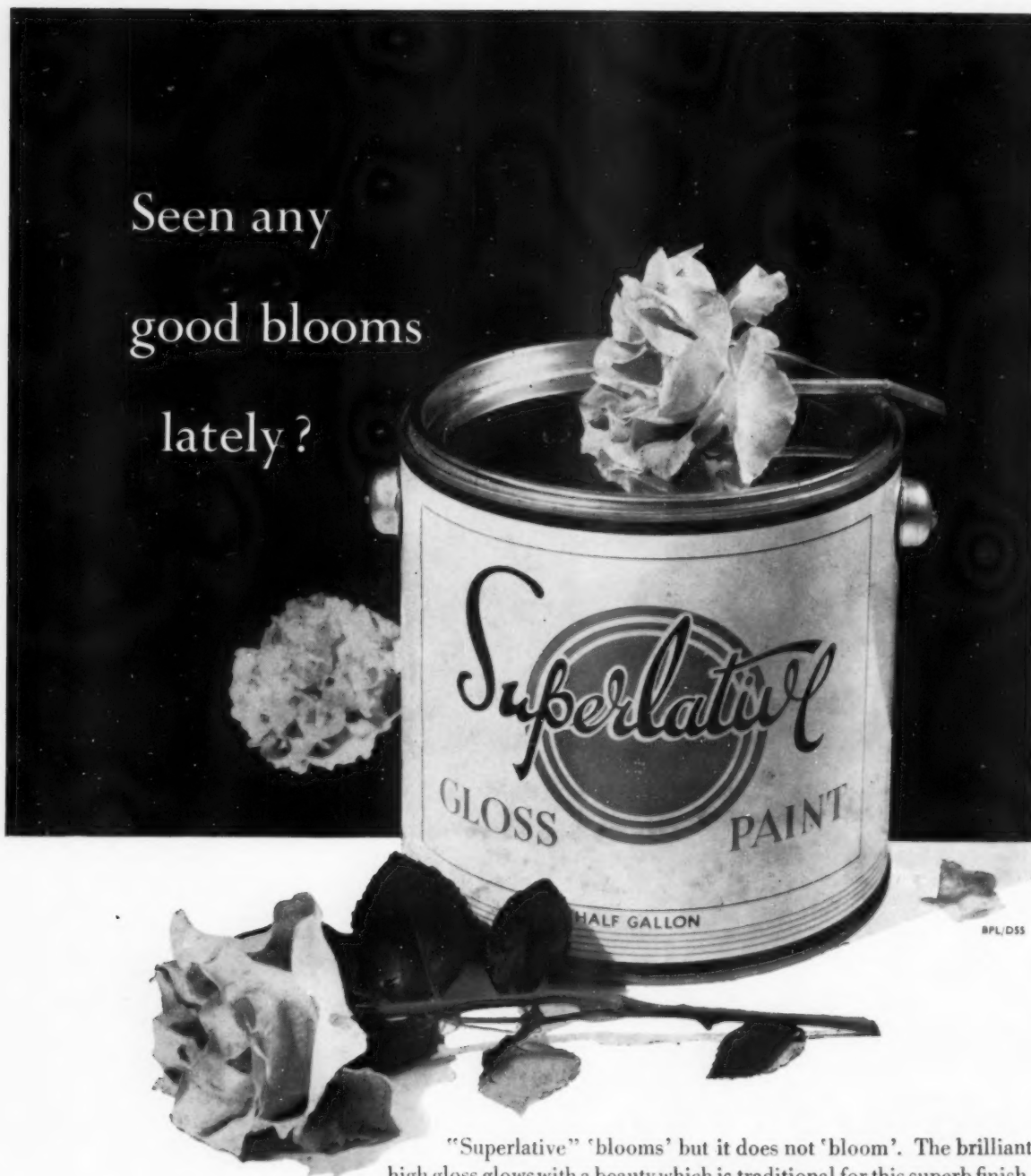
30 AUGUST 1956 · VOL 210 · NO. 9 · ONE SHILLING WEEKLY

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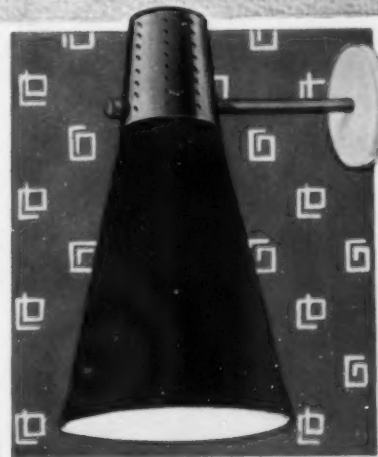
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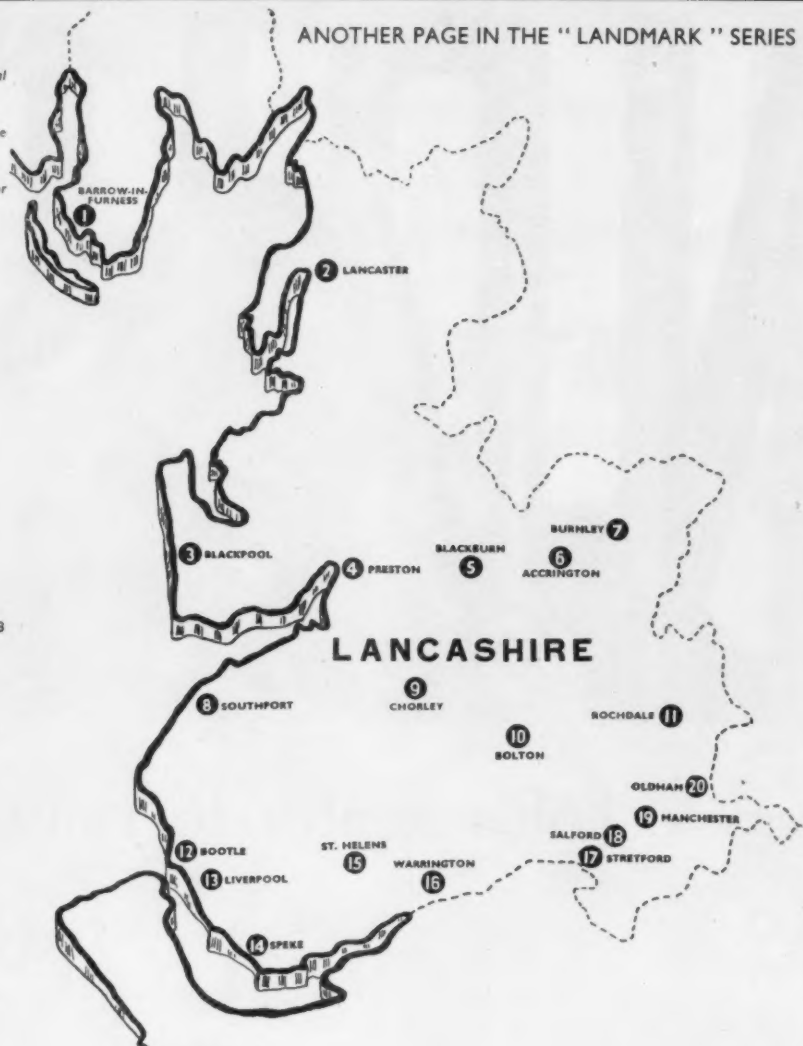
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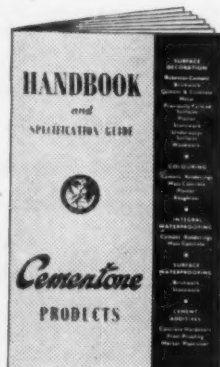


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Aerial view of part of the L.C.C. Housing Estate, Merstham

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# ELLARD

## ESTATE

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## SLIDING DOOR GEAR

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# OVERDOR

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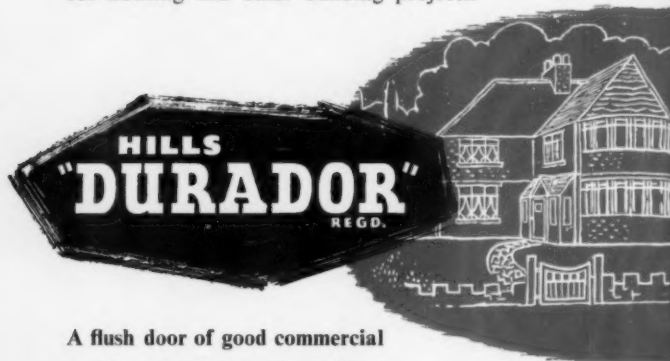
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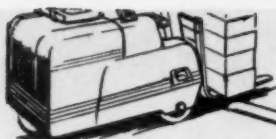
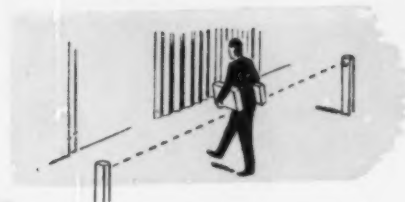






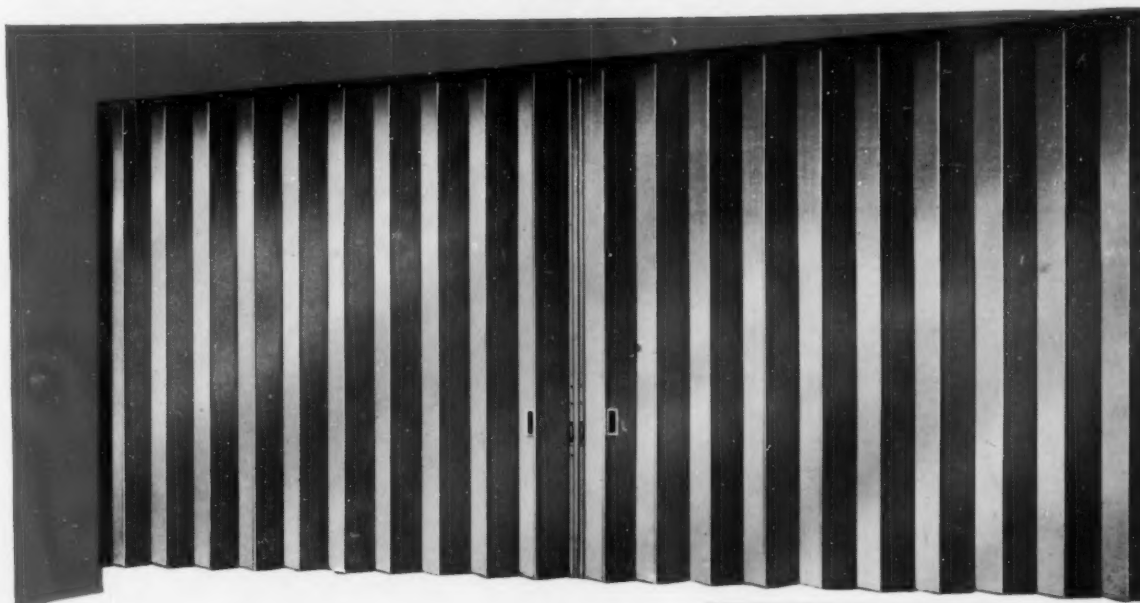
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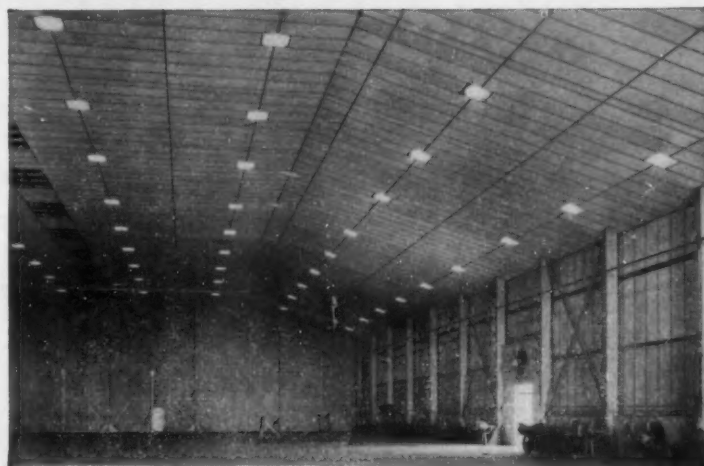


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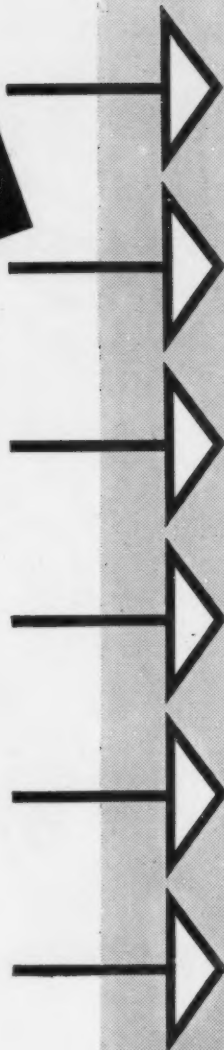
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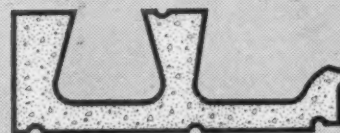
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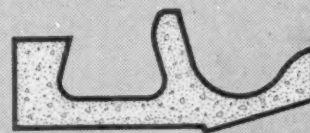
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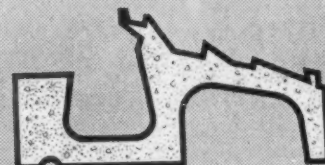
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# THE ARCHITECT & BUILDING NEWS

August 30, 1956

The "Architect and Building News" incorporates the "Architect" founded in 1869, and the "Building News," founded in 1854. The annual subscription, inland and overseas, is £2 15s. 0d. post paid: U.S.A. and Canada \$9.00 Registered as a Newspaper.

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## IMPROVEMENT GRANTS

THE intention of the 1954 Housing Repairs and Rents Act was clearly to revitalise the earlier legislation of 1949, which had failed so dismally in its purpose to provide an impetus to the improvement of properties suitable for rehabilitation. The changes in legislation were chiefly to leave entirely in the hands of the local authority the decisions as to whether or not any particular application for an improvement grant should be allowed, and to give the authorities an instruction to fix a new standard rent in accordance with any added amenity (section 37). That the newer proposals have failed so far is beyond contradiction, and less than one per cent. of rent controlled houses are said to have been improved; of these a high proportion relate to owner/occupied property. Indeed, generally to the advantage of the architect, many owner/occupiers have been able to improve their properties and to effect very desirable changes in both accommodation and amenity standards. Unfortunately, however, the investment landlord has remained for the most part uninterested; and one very evident reason lies in the power of both landlord and tenant to veto the terms of any proposed improvement. A landlord, understandably, will not consider any scheme of improvement if the financial returns are not adequate; on the contrary, a tenant is unlikely to pay what he considers to be an exorbitant figure in additional rent to secure modern amenities. Almost invariably there is a very heavy cost to meet by way of repairs before a house can be considered suitable for an improvement grant. This money has to be provided from capital, or loan charges met; and whatever the form may be, adequate returns on the money invested cannot be expected. The restrictions in rent increase frequently restricts any such increase to a figure which rarely exceeds 5s. 6d. a week. The basis of the problem still lies in rent restriction, and an inability or reluctance of any government to permit rent increases to match the present circumstances.

Under the provisions of section 20 of the Act of 1949 a local authority is empowered to make grants to private owners for the provision of dwellings by the conversion of houses or other buildings and for the improvement of existing dwellings. It is suggested that in the main private owners have failed to take advantage of a broad interpretation of the words "other buildings". There are very many buildings, especially in rural areas, not built initially for housing purposes but certainly capable of conversion, often with very pleasing results. From the financial aspect a good home can be obtained more cheaply and more speedily than by normal new house building methods. Where any work of this character is undertaken it is of course essential to have separate specifications and cost estimates of the items which are to be grouped as repair work and improvement respectively. Providing the owner satisfies the local council that the new units will provide good housing accommodation for not less than 15 years and that he has either a freehold or leasehold interest in the property for an unexpired term of at least 30 years, or at least a period equal to that which will provide satisfactory housing accommodation, the scheme is likely to meet with very little difficulty.

The useful part that these provisions can play in the case of many houses in local authority slum clearance schemes is often lost sight of; even if the houses are subject to clearance orders. Despite opinions to the contrary the clear intention of the Ministry is to permit improvement grants being given on houses which need not necessarily be demolished as slums.

There is a case for believing that local authority slum clearance proposals, now well in hand so far as the five year programme is concerned, will provide an added incentive for improvement grant facilities. Houses are spoken of now as being "reasonably suitable for occupation," and the measure of doubt in determination which such a broad expression must create, is sufficient to leave local authorities with a heavy responsibility in



attempting to deal with individual houses in a borderline condition, especially the country cottage, often with ample air space at front and rear. It is for such reasons that local authorities will be keen to give fair consideration and indeed encouragement to proposals for improvement.

Local authority officers exercise a practical approach to all these issues and are usually found to be extremely sympathetic to any overtures for advice or help or to proposals for reconditioning. To repair and improve a house might cost £300 to £800 according to its condition, but to build a new house to replace a demolished dwelling will cost £2,500 to £3,000 if all the expense factors are taken into account. Every local authority recognises this and will assist with all its available resources to save houses in sound structural condition.

## EVENTS AND COMMENTS

### THIS IS THE DAY BEFORE YESTERDAY

I am no more qualified than the organisers to say whether the exhibition "This is Tomorrow" at the Whitechapel Art Gallery accurately depicts what we, or our children are in for in the way of painting, sculpture and architecture. It is a squalid show for the most part. The outlook seen through these eyes is indeed mouldy. It is difficult enough to find out what it is all about even when armed with the five shilling guide. It seemed quite incomprehensible without it. On the whole the sculptors come off best with their plaster or paper and chicken wire all shapes and their lumps of wood. The painters are clearly very gloomy fellows and the architects are next to nowhere. "A particle is snatched from space, rhythmically modulated by membranes dividing it from surrounding chaos: that is Architecture," says the guide.

The entrance to the exhibition is, I take it, meant to represent today with its montages of film posters and coloured food pictures by Heinz. A juke-box blazes all day in the ear of the pale faced attendant. The juke-box is the centre of attraction. So this is today and the rest is tomorrow. Poor chaps.

Here and there there are some pleasant inconsequential shapes; if they have any significance neither I nor the guide detected it. I met a small boy and asked him what he thought about one of the shapes. "I like it" he said "it's a nice shape." In a corner of another shape another small boy was reading a comic.

I could not help feeling that cleaning the exhibition could present few problems, the normal litter would quickly become a part of the exhibition, along with the rusty bicycle wheel and crumpled bugle.

The highlight of the catalogue is a double spread of



*Queen's Beast, Yale of Beaufort being erected on the lakeside terrace of the Palm House at Kew.*

the Smithsons, Paolozzi and N. Henderson, playing sit-down Za-Za in an east-end street, or perhaps its in Chelsea.

### QUEEN'S BEASTS FOR KEW

I am personally delighted that I shall have an opportunity of seeing the Queen's Beasts again, in the form in which they were modelled in plaster to go outside the Westminster Abbey temporary annexe at the Coronation.

Ten replica Beasts 6 feet high on pedestals 2 feet 3 inches high, have been carved in Portland stone by James Woodford, who modelled the originals for the Abbey. My picture shows one of them, Yale of Beaufort, having its head lowered on to its body at the Royal Botanic Gardens, Kew, which seems a most suitable place for them.

The work was commissioned by an anonymous donor.

### HIGH WRIGHT

F.L.W.'s latest project, according to a report in *The Times*, is for a 510-storey building in Chicago exactly a mile (5,280ft) high, which would accommodate 100,000 workers and stand on a base 400 feet by 500 feet. This would dwarf the Empire State building in New York which is a mere 1,472 feet high.

ABNER

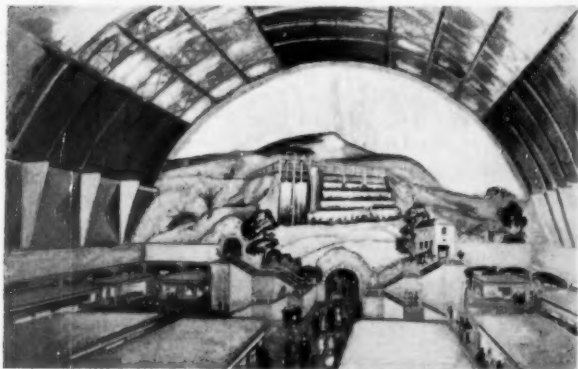


## NEWS

### Imperial College Expansion

Richard Sheppard and Partners have been appointed as architects for the Imperial College scheme for expansion in Princes Gardens. The North, East and South sides of the Gardens, which lie east off Exhibition Road and about a hundred yards from College buildings, were acquired by the College in mid-July. It is hoped to proceed immediately with the development of the East and South sides. New Halls of Residence, to include some 480 study bedrooms, will be provided in a new building on the East side and in half of a new building planned for the South side. The remainder of the building on the South side will provide certain common room and refectory facilities originally planned for the central College site, but transferred to Princes Gardens under the revised building plans which allow the Colcutt Tower to be retained as a free-standing campanile.

A spokesman of the College said that there would be close liaison between the architects of the new scheme and Norman & Dawbarn, architects for the main project. "By commissioning another architect it is hoped that the latter will be left free to devote all their attention to the main academic development."



Sketch by R. Bartle of the back cloth at Olympia's Food Fair which opened this week. Steel scaffolding support the artificial weir over which 35 tons of water constantly pour in two falls; one direct and one in four steps, for a drop of 20 feet. The backcloth was painted by Alick Johnstone from a small painting by Miss Jean Beecher.

### I.L.A. Summer Conference

The Institute of Landscape Architects will hold their Summer Conference, 1956, at Bakewell, from 6th to 9th September.

Members will arrive on the evening of the 6th; the inaugural meeting will be held the following morning commencing at 9.30 a.m. in Aldern House, Bakewell, the headquarters of the Peak National Park Planning Board, when the Editor of the *Manchester Guardian*, Mr. Patrick Monkhous, will formally open the conference. At the first session Mr. R. Abrahams, Secretary of the National Parks Commission will speak on the administration of the National Parks and Mr. Monkhous will speak on "The Peak Park and its special problems." Chatsworth House will be visited in the afternoon.

On Saturday 8th, there will be a conducted tour by coach of the Peak District National Park and in the

evening a discussion on the tour at Aldern House led by the Deputy Planning Officer of the Board, Mr. F. Forrest.

A final session at Aldern House takes place on Sunday morning, September 9th.

### Stirlingshire Building Week

The Education Authority of the County of Stirling, with the co-operation of the Scottish Headquarters of the Ministry of Works, is arranging a "Stirlingshire Building Week Display and Exhibition" for September 14th-22nd. The event will be concentrated, in the main, in the Falkirk Town Hall and the County Trades School, and will be opened by Mr. J. Henderson Stewart, M.P., Parliamentary Under Secretary of State, on September 14th. The purposes of the Building Week are to stimulate local interest in the work of the building and civil engineering industries and to further the recruitment of the right type of apprentice or student.

Among others participating will be local and national manufacturing concerns, professional associations, local and other authorities, and trade unions. The County Trades School will be open for inspection throughout the week, and the public will be able to see the work which is undertaken by apprentices in various trades in the course of their studies. There will also be lectures and film shows on the various aspects of building work, and competitions for apprentices.

### L.M.B.A. Notes

The annual practical examination in stonemasonry, organised by the London Association of Master Stonemasons, and open to stonemason apprentices in the London Region, takes place this year at the Wandsworth Stonemasonry Works, Wandsworth, on Saturday, September 15th.

The prizes are to be presented by the Master of the Worshipful Company of Masons, Mr. A. M. Woodman, C.C., at a ceremony in the L.M.B.A. Headquarters on the afternoon of Tuesday, September 25th.

★ ★ ★

The L.M.B.A. has decided to offer two medals, one silver and one bronze, to students taking the examination in General Foremanship Studies, which was recently instituted by the City and Guilds of London Institute.

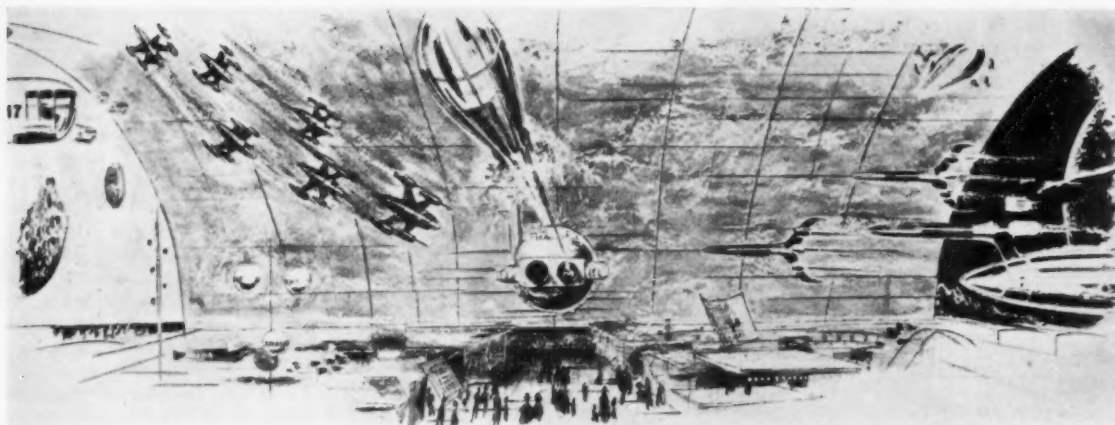
The medals will be awarded to the two candidates who gain the highest aggregate marks in the examination, provided they are in the employment of firms in the London Region of the National Federation of Building Trades Employers, and that in the judgment of the Department of Technology of the City and Guilds they attain a standard justifying an award.

### New Surveyor For St. Paul's

The Dean and Chapter of St. Paul's Cathedral have appointed Lord Mottistone to be Surveyor to the Fabric of the cathedral in succession to Mr. Godfrey Allen, whose resignation takes effect at the end of this year.

Lord Mottistone, who will take up his duties on January 1st, 1957, has been responsible, with his partner, Mr. Paul Paget, for the reconstruction after war damage, of Westminster Abbey and Lambeth Palace, as well as a number of other churches and buildings and are architects for the church to replace the blitzed City Temple.





A sketch of the interior of the National Hall, Olympia, where the Hulton Boys' and Girls' Exhibition is being held from August 28 to September 8

## Law and Administration

### Credit Squeeze and Building

The following table, which shows the monthly totals for housing and the quarterly total for other buildings, indicates the volume of private building work done in the months just before and since the beginning of the credit squeeze.

Year	Month	Quarter	New Starts				Houses thousands
			New Housing	Industrial work	Other new work	Maintenance excld. housing	
			£m	£m	£m	£m	
1955	April	2nd	53	52	30	28	13.0
	May						12.9
	June						12.2
	July	3rd	61	56	33	30	11.8
	Aug.						11.5
	Sept.						11.5
1956	Oct.	4th	57	61	35	30	11.4
	Nov.						10.6
	Dec.						7.4
	Jan.	1st	57	59	36	29	8.5
	Feb.						7.0
	Mar.						11.1
	April	2nd					12.8
	May						12.5
	June						—

\* Subject to revision.

### Appointments

Dr. H. W. Melville, F.R.S., will take up his appointment as Secretary of the Department of Scientific and Industrial Research on August 27th, 1956.

\* \* \*

Dr. G. B. B. M. Sutherland, F.R.S., will take up his appointment as Director of the National Physical Laboratory on September 14th, 1956.

### Announcement

Mr. L. J. Slatter, M.Inst.R.A., F.I.Arb., has transferred his practice from Leatherhead to new premises at London Street Chambers, 1-3 London Street, Chertsey, Surrey, where he will be pleased to receive trade literature.

For some time the view has been expressed in certain quarters that progress with slum clearance schemes was inhibited by the procedure involved. This procedure was said to be needlessly cumbersome and slow. Earlier this year the Minister of Housing undertook to review the matter to see if improvements could be effected. As reported last week, he has now authorised the issue of a circular which sets out the changes it is proposed to make. In order to give effect to these changes the *Housing (Forms of Orders and Notices) (Amendment) Regulations, 1956* have been made.

### Changes in Administrative Procedure

The changes described in *Circular 44/56* fall into several distinct categories. Simplifications are to be made in the number, and kinds of maps to be submitted. Hitherto maps defining clearance areas were required to be of 1/500 scale or thereabouts. The Minister is now prepared to accept smaller scales in order to economise in time and work by skilled staff. He will now accept either smaller scales (unspecified) or 1/1250 or 1/2500 blown up to 1/500. The Circular reminds Councils that they must nevertheless, be "satisfied in each case that the map adequately and clearly represents the clearance area, etc., in sufficient detail to provide the necessary information to those affected". Moreover the Circular wisely reminds Councils they must bear in mind that "many objectors will have had little experience of maps". This new arrangement will, doubtless, save some time but that saving can easily be exaggerated. Experience at inquiries shows that there is often great difficulty in correctly identifying properties and ascertaining in which category they have been put from all but the largest scale maps. The circular also sets out a simpler alternative method of notation for these maps which should certainly help a little in saving time. Where the area of a clearance area is identical with that of the related clearance or compulsory purchase order the Minister will in future require only one map, provided that the declaration of the area and the making of the order are carried out at virtually the same time.

When such orders are made the procedure has in the past involved a detailed vetting by the Ministry of the order documents. In future it is proposed to rely upon the care and attention which the local authorities them-



selves give to this important process. The Ministry will only make a careful examination of these documents when requested to do so by the Council concerned or for other special reasons. Having regard to the pace at which the Ministry works at the present time this concession is probably the biggest time saver proposed by the circular. It means, however, that those concerned by these orders will do well to scrutinise the documents with much more care than hitherto.

A number of alterations are to be made in the number, form and content of notices concerned with clearance procedure. Instead of sending to the Ministry copies of notices served upon owners and occupiers affected as well as those published in local newspapers it will now be sufficient for the Council to send a certificate to the Ministry stating that the requisite steps have in fact been carried out. Where a clearance order declares certain houses to be unfit for habitation it is necessary for the Council, if any owners or occupiers object, to serve a notice upon them stating the grounds on which the houses concerned have been so declared. In the past the Minister would not fix the date of the inquiry until the latter step had been taken. He now proposes to go ahead and fix the date of the hearing permitting the Council concerned to certify later that they have served the appropriate notices under Section 41 (1) of the Housing Act, 1936. Nevertheless copies of the relevant notices and the certificate must reach the Minister not less than 14 days before the date of the hearing.

Some joint notices are now to be made. Where the Minister confirms several clearance or compulsory purchase orders under Part III of the Housing Act, 1936 there may in future be publication of a joint notice of confirmation. The Circular adds:

"Where this course is adopted, the advertisement should include a composite schedule containing the necessary details of properties, etc., in all the orders of which notice of confirmation is being advertised".

The Circular also states that where several demolition orders are to be made under Section II of the 1936 Act, and these are in a single ownership and under the control of a single person, a composite "time and place" notice under the Section may be prepared. This latter dispensation clearly needs careful consideration since the words used are capable of several meanings.

Finally, as regards pre-inquiry procedure, the Minister urges two points on local authorities. He points out that a clearance or compulsory purchase order under Part III of the 1936 Act can be made virtually simultaneously with declaration of a clearance area, with consequent saving of time "Where this course cannot be followed, time can be saved if Part III orders are submitted as soon as possible after the declaration of the clearance area". It is also pointed out that time can often be saved by making a large clearance area the subject of several small orders. Thereby some parts of the area may go without objection and thence obtain speedy confirmation.

### Inquiry Procedure

Once a clearance area has been declared local authorities have the choice of proceeding with either a compulsory purchase order or a clearance order. The choice is of importance to those affected by it and "will in any event assist the Minister in reaching his decision". The Ministry therefore properly advise, though it has nothing to do with saving time, that

"In presenting their case at inquiries, local authorities should therefore make clear their reasons for deciding to proceed by way of clearance or compulsory pur-

chase order and, in the latter case, the use to which the area will be put".

Hitherto, it has been the practice for the Inspector at the close of the inquiry to inspect all the properties included in these orders to see whether they qualified for a payment for "good maintenance". In future the Inspector will not inspect houses in regard to which no objection has been made wherever he can be otherwise satisfied as to their condition. The corollary to this is that the Minister will now require all those who wish to claim good maintenance payments, whether under the 1936 Act or the 1956 Act, to make a representation to that effect. Specimen Forms are appended to the Circular to enable that to be done. These latter arrangements are perhaps somewhat curious, and their exact effect and validity will need to be closely watched.

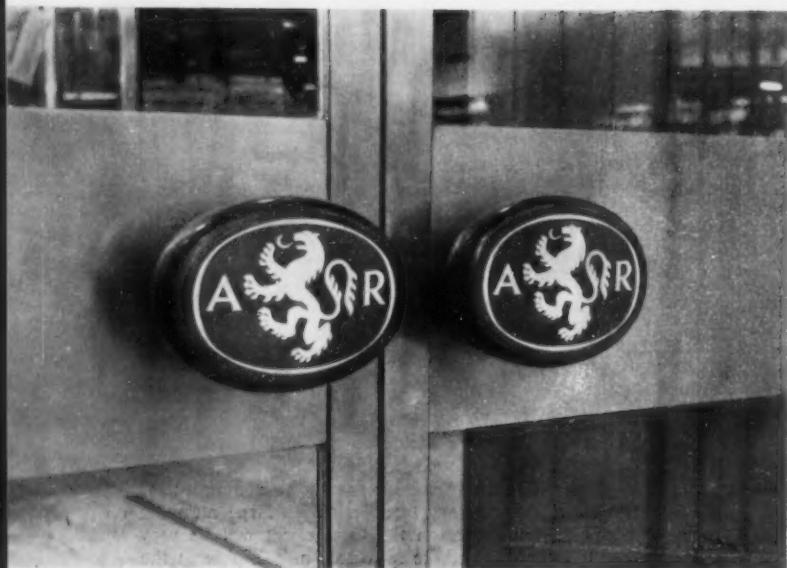
### The Effect of the Changes

The changes now to be made are to be taken into use effectively from 1st October, 1956. They will, so far as they go, undoubtedly save a reasonable amount of time and much unnecessary trouble. With large numbers of schemes in contemplation the total effect will be very useful. Yet necessarily these measures only nibble at the edges of the problem. If a major speeding up of the slum clearance programme is really desired new legislation is essential.

*The sixteen floor point block at Golden Lane Housing Scheme near St. Paul's. Work on the second half of the project is scheduled to start early in '57 and the present works should be completed by next May. Roof feature covers lift rooms, water tanks and boiler house flues. Architects: Chamberlin, Powell & Bon.*







Detail of entrance door handles

Looking through entrance doors



# AUSTIN REED SHOP

LIVERPOOL

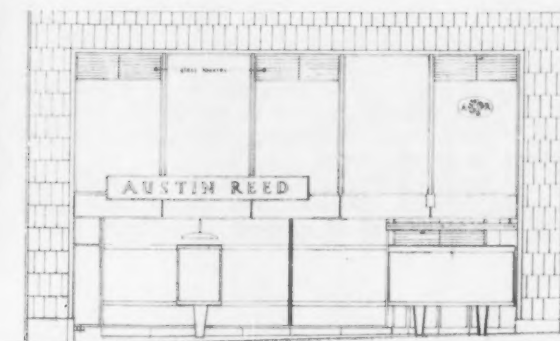
architects: WESTWOOD SON &amp; HARRISON

THE requirements of a tailoring shop of this kind are essentially simple; a facade which will not be ignored; good display windows of various sizes and sufficient floor space so that the various fittings are not too close to each other. It is in the detailed interpretation of these requirements that the skill of the designer becomes apparent. In tailors' shops the open front has not ousted the normal type of display window.

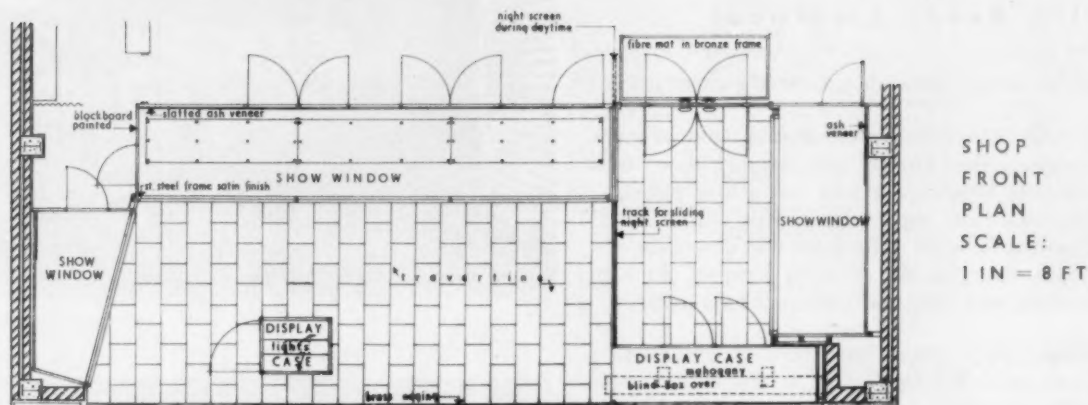
In this case this building had only just been completed (to the design of Messrs. Seymour Harris and Partners) and the facade, faced in riven slate, was suitable in character for a shop of this kind. The shop front was carried up two floors, giving ample light at the front at first floor level. An additional large window had to be formed at the rear and modifications made to the existing staircase. But otherwise there were no major difficulties to be overcome.

The front has been recessed to enable a considerably

SCALE: 1 IN = 14 FT







greater window length to be obtained within the street frontage. Two isolated showcases have been incorporated for the display of shirts and other small articles whilst the two side windows are mainly for clothing. The main window (23 ft long) has been fitted with a special display frame unit making it possible to show every kind of merchandise within the one unit.

A sliding night screen which during the day disappears within the double skinned end of the long window, is used to cut off the entrance lobby, but when

closed does not obstruct the view of the windows.

#### Planning

The showroom space is planned on two floors (shirts, ties, etc.) and a self contained shoe department is on the ground floor and tailoring on the first. On both these floors great restraint has been observed and despite the complexity of the fittings needed, a calm and simple architectural setting has been achieved. A setting which derives its interest from the goods themselves helped by the skilful use of concentrations of lighting and the

continued overleaf





## **Austin Reed, Liverpool**

colours of natural materials used in the construction.

The public have free access to most of the stock in the showrooms. The fittings and fixtures have been evolved from experience gained over a long period — but especially from experiments carried out when refitting several branches of the same firm during the past two years. Every detail, including most of the light fittings have been designed in the architects' office.

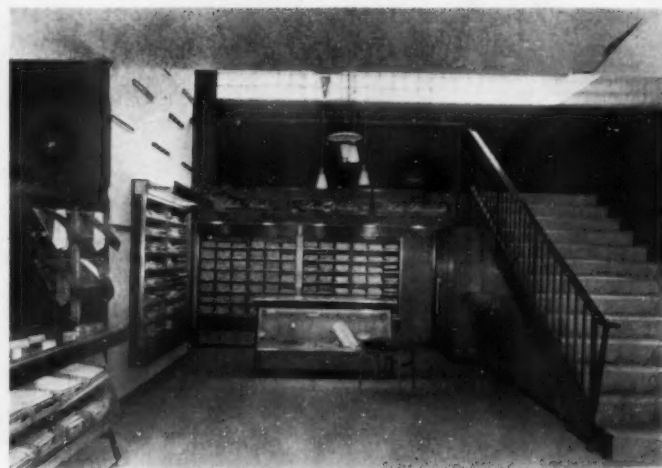
In many shops fittings have been crammed into a minimum space but fortunately, at this branch, there was sufficient room to space them out so that they could be properly seen and the feeling of confusion — detrimental to many new shops — has been avoided. In striving for simplicity, the architects have not produced a dull design. The ceiling of ribbed asbestos sheets is designed in saw tooth form and masks projecting beams as well as providing a setting for the lighting. The floor and ceiling are used to emphasize the different sales divisions. The stair is lit by means of a specially designed pendant lighting fitting which can be lowered for cleaning.

Slabs finished with spar give a sparkle to the staircase wall (one of the walls of the shop is enlivened with an enlarged reproduction of an 18th century engraving of Liverpool!).

*1st floor showroom*



*Shoe shop*



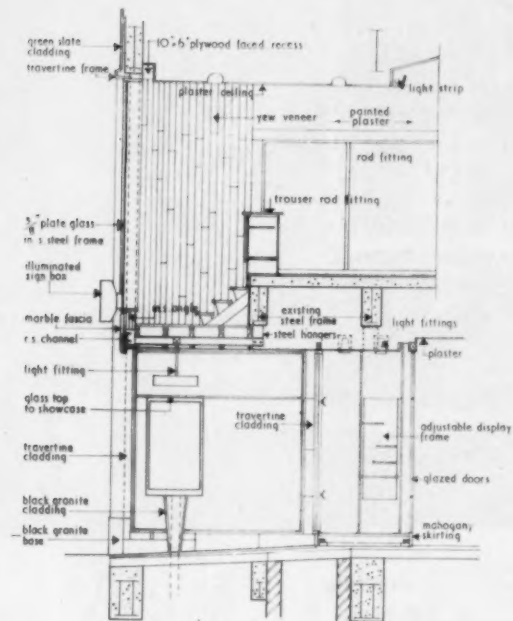
*Stair at back of showroom*



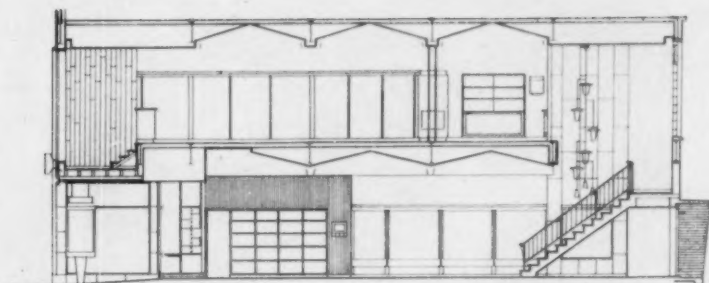


### SHOP FRONT SECTION

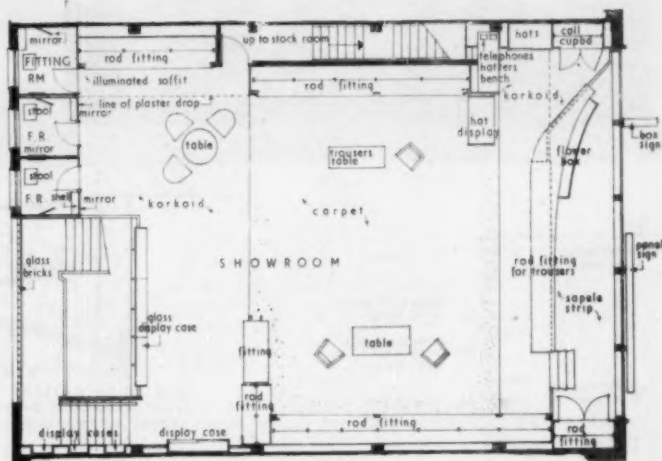
SCALE: 1 IN = 8 FT



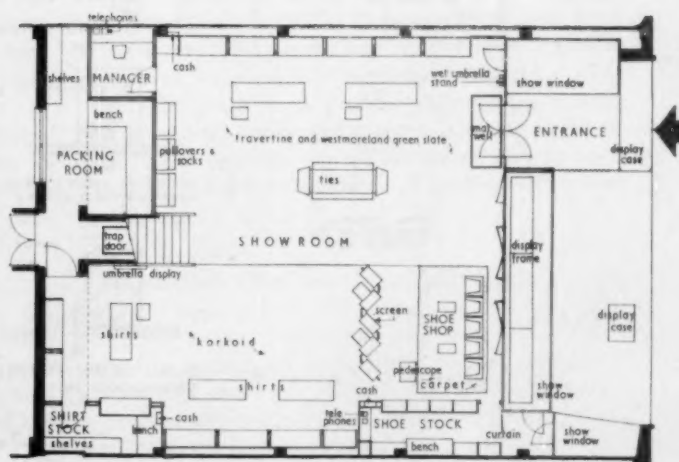
1st floor showroom looking  
towards street



### LONG SECTION



**FIRST FLOOR**

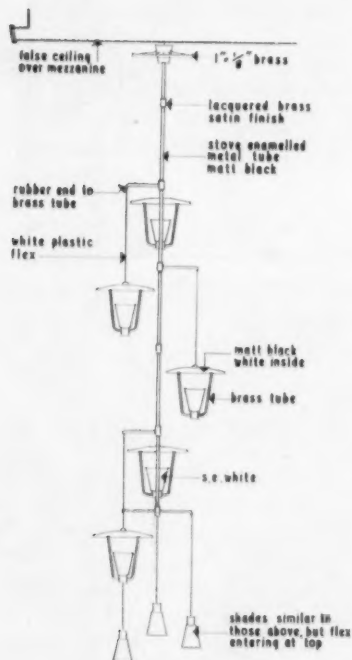


GROUND FLOOR  
SCALE: 1 IN = 16 FT





Asbestos sheet ceiling



LIGHT DETAIL  
SCALE: 1 IN = 3 FT

CEILING DETAILS ▶  
SCALE: 1/4 F.S.

**Austin Reed Shop  
Liverpool**

THE ARCHITECT and Building News, 30 August 1956

Partner in Charge:  
NORMAN WESTWOOD

Assistant Architect:  
Z. FLESZAR

General Contractors:  
GEORGE PLATT & SONS

Carpets and Chairs:  
Heals Contracts Ltd.

Electrical Installation:  
Austin-Reed Ltd.

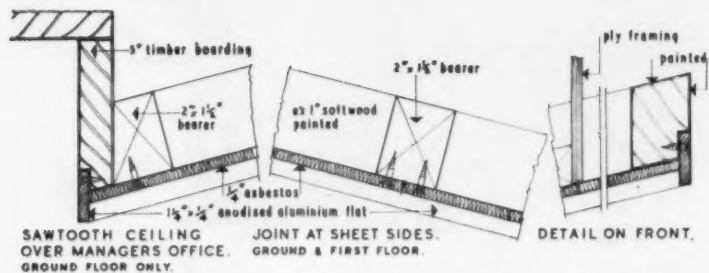
Flooring  
Korkoid Decorative Floors Ltd.

Illuminated Signs:  
Pearce Signs Ltd.

Ironmongery:  
Yannedis & Co. Ltd.

Marble and Granite:  
John Stubbs (Marble & Quartzite) Ltd.

Shopfitting:  
Harri's & Sheldon Ltd.



SAWTOOTH CEILING  
OVER MANAGERS OFFICE,  
GROUND FLOOR ONLY.

JOINT AT SHEET SIDES,  
GROUND & FIRST FLOOR.

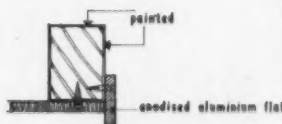
DETAIL ON FRONT.



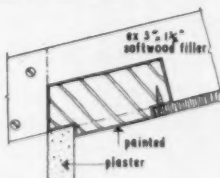
JOINT AT SHEET ENDS  
ON FLANK WALLS.



JOINT AT SHEET ENDS,  
GROUND & FIRST FLOORS



DETAIL ON UNEVEN EDGES,  
GROUND FLOOR ONLY.



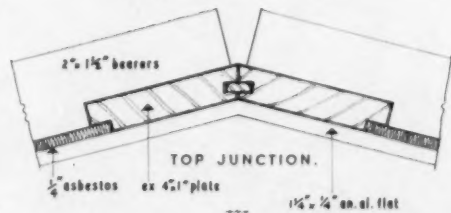
JUNCTION WITH BEAM CASING.



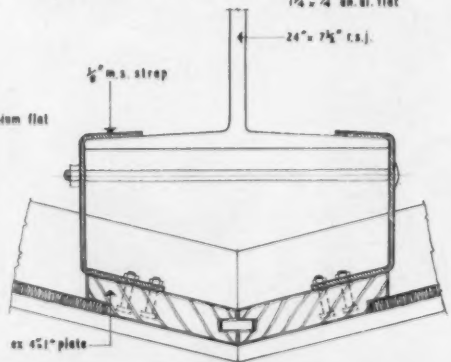
TYPICAL GROUND FLOOR BAY.



TYPICAL FIRST FLOOR BAY.



TOP JUNCTION.



BOTTOM JUNCTION





## CECIL CINEMA, HULL

architects: GELDER AND KITCHEN: Partner in charge: JOHN P. TAYLOR  
in association with A. K. BRAY and J. R. HOBSON

ON the site of this new Cecil Theatre there formerly stood the Hull Trinity House Alms houses, a fine old Georgian building occupied by retired seafarers, and the old Cecil Theatre. Both were destroyed, with loss of life, in the 1941 air raids.

A general layout of the new proposals was prepared and agreed with a Committee of the Directors and Mr. A. C. Blackmore, F.R.I.B.A., who was present in an advisory capacity, after which the detail and working drawings were prepared by Messrs. Gelder and Kitchen.

The site was determined by the Hull Corporation and included the large splay required by Ministry of Transport and local planning requirements. There was in the site a fall of approximately 4 feet from north to south, and the subsoil bearing capacity was poor, consisting of three or four feet of clay over silt.

### Planning

The auditorium holds 2,052 people; 678 in the balcony and 1,374 in the stalls. Its shape was dictated by acoustic requirements and the need for a wide screen which is 58 feet in length. The architects tried to achieve the effect of making the screen part of the auditorium.

The main entrance, staircase and foyers were placed on the large splay, with the auditorium rake following the natural fall of the site. On all sides, the auditorium is separated from the busy roads by the cafe, foyers

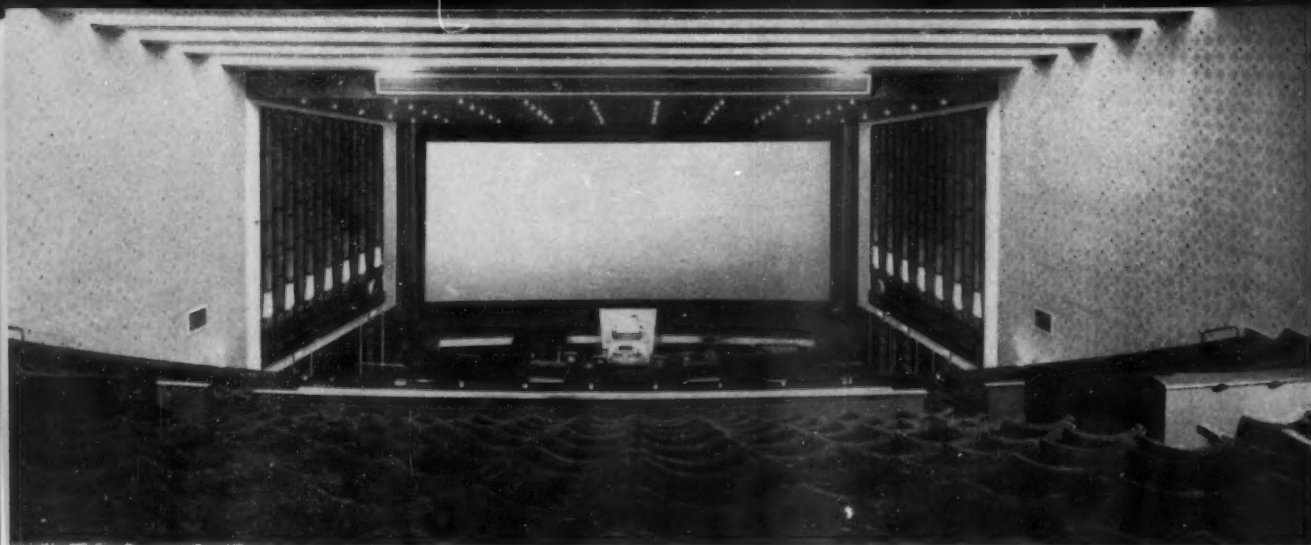
and waiting spaces which function as an acoustic shield against traffic noises.

The main staircase leading to the balcony and cafe from the entrance foyer has been designed to give colour and interest when first entering the building. It is emphasised by the provision of a large window wall over, giving light to the cafe at first floor level and the boardroom and director's offices at second floor level. These rooms have a position commanding extensive views over the main thoroughfare of the City. The foyers are as large as possible in order to provide internal waiting space under cover. The cafe, with its independent entrance from Carr Lane, can be used separately for private functions or in conjunction with the cinema.

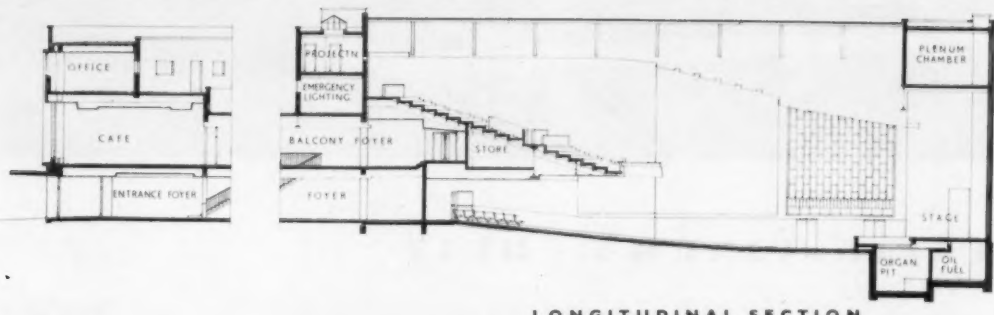
### Construction

Foundations. These are of reinforced concrete beams and pile caps on *in situ* reinforced concrete piles. Structural Frame. Structural steel frame with lattice girders to auditorium roof, riveted balcony girder and welded steel cantilever girders. All steelwork encased in concrete or gypsum plaster on metal lath to meet fire protection requirements under new Byelaws. Walls. Solid panels of 13½ in brickwork externally generally with 9 in and 4½ in brick division walls internally. 16 in cavity brick panels to auditorium. Floors. Precast reinforced concrete units. Roofs. Precast reinforced con-





Looking down from the balcony towards the 58 ft wide screen



LONGITUDINAL SECTION

## Hull Cinema

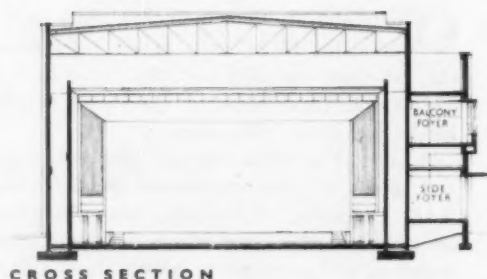
crete units to offices, etc. Aluminium decking to auditorium. Ceilings. Plaster on scrim to soffits of precast units. Plaster on expanded metal to suspended ceilings. Fibrous plaster to lighting troughs, organ surrounds, etc.

### Finishes

Internal Walls. Plaster generally. Fibrous plaster tiles on Fibreglass quilt to auditorium walls. Lionide fabric to dados. Mahogany strip to entrance hall. Glazed tiles to kitchen, lavatories, etc. Floors. Screed to receive carpet to cafe, foyers, etc. Boarding to auditorium. Hardwood strip to orchestra platform and stage. Hardwood strip floating floor to cafe. Terrazzo tile to lavatories, etc. Ferrolite tile to kitchen and stores. Precast terrazzo treads and risers to cafe and main staircase. External Finishes. Walls are faced in brown rustic facing bricks with Portland stone surrounds to the feature window, and reconstructed stone dressings and decorative panels to the west foyer windows. Slate surrounds are used to the small windows on the main elevations. A blue faience tile facing is used adjacent to the main entrance with precast terrazzo linings. Colour. For speed, emulsion paint has been used throughout on walls and ceilings, with synthetic gloss paint on woodwork. Hardwood strip has been polished matt finish.

### Heating and ventilation

The ventilating system to the auditorium comprises a filtered and warmed fresh air supply providing 1,000



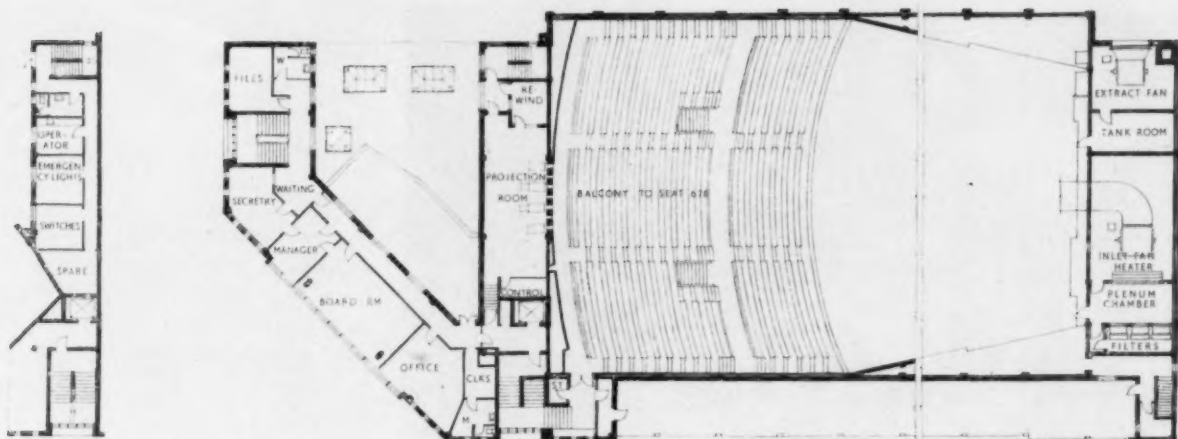
CROSS SECTION

cu ft of fresh air per hour per person. A separate system giving six changes per hour is provided in the Cafe. Fan convectors heat the foyers and entrance hall, and radiators heat lavatories, offices, etc. The oil-fired boilers are situated under the stage in the reinforced concrete basement.

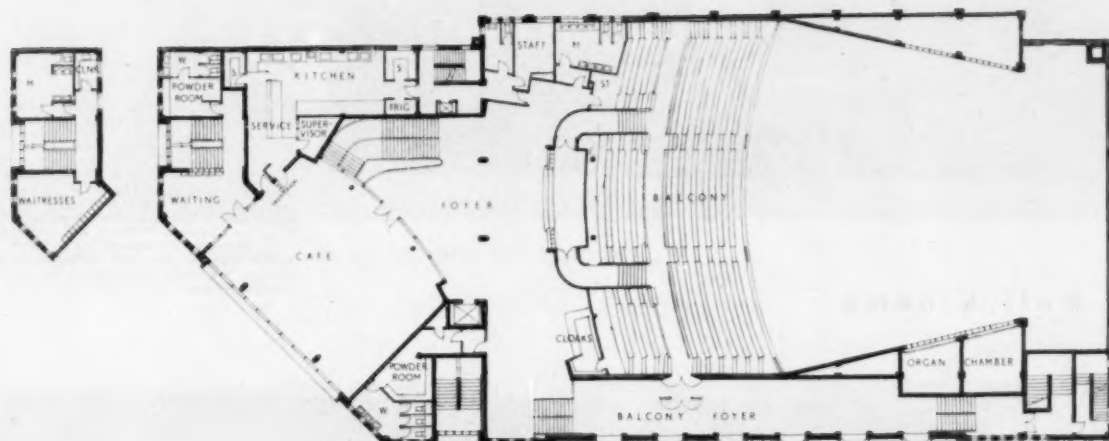
### Lighting

The lighting has been designed as the main feature of interior decoration and consists of direct and indirect fittings designed to give sparkle and life to the building. In the Auditorium the ranges of semi-concealed cold cathode lighting and sparkling "Starlight" fittings operated by an electronic dimmer are the principal source of illumination but the main interest has been directed towards the screen by providing colour change sequences on the 60 foot wide screen curtains.

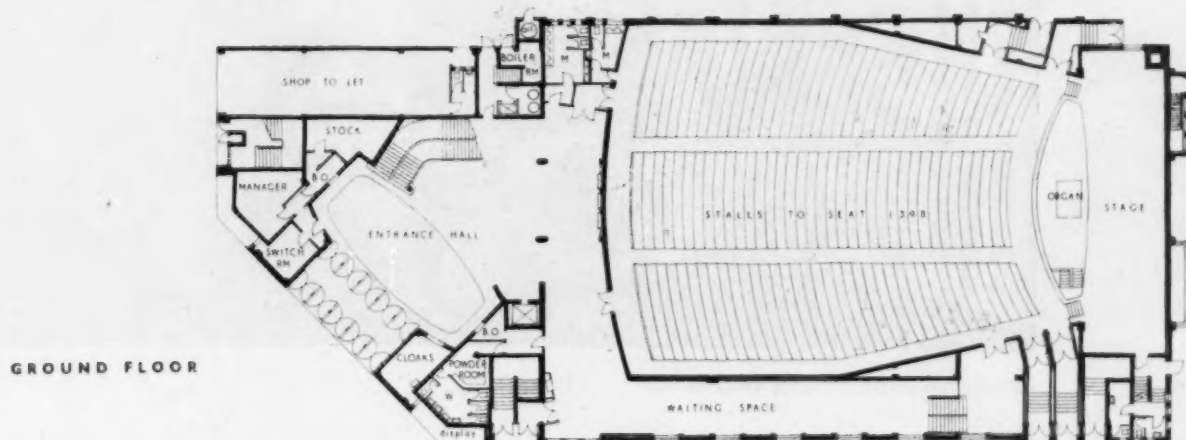




OFFICE FLOOR PLAN



BALCONY FOYER PLAN  
SCALE: 1 IN = 40 FT



GROUND FLOOR





Interior of the 1st floor cafe

## Hull Cinema

### Architects:

Gelder & Kitchen,  
F/L/A.R.I.B.A.

### General Contractors:

Spooners (Hull) Ltd.

### sub-contractors:

Bricks: Richard Thomas & Baldwin Ltd. Carpets: H. Goldstone & Sons, Hammonds Ltd. Curtains: H. Goldstone & Sons. Door Furniture: Comyn Ching & Co. (London) Ltd. Electric Fittings: The General Electric Co. Ltd. Electrical Installation: City Electrical & Engineering Co. Ltd. Firefighting Equipment: Kingsford Products Ltd. Flooring: Asbestos & Rubber Co. Ltd. (Plastic), J. A. Hewetson & Co. Ltd. (Hardwood). Floors (Precast): Concrete Ltd. Foundations: Wm. Moss & Son Ltd. Furniture in cafe: Ewbank Ltd. Heating and Ventilation: Rosser & Russell Ltd. Kitchen Equipment: Benham & Sons Ltd. Lift: Waygood-Otis Ltd. Organ: Mr. Marshall Sykes. Organ Lift: W. J. Furze & Co. Ltd. Painting and Decorating: F. A. Wills Ltd. Piling: Holmpress Piles Ltd. Plaster (Fibrous): W. J. Wilson & Son. Plumbing: Drape & Upton Ltd. Roofing: Wm. Briggs & Sons Ltd. Refrigeration: L. Sterne & Co. Ltd. Sanitary Equipment: Ideal Boilers & Radiators Ltd. Sanitary Fittings: Dawbar Townsley & Co. Ltd. Seating: G. B. Kalee Ltd. (Stalls). Pathe Equipment Ltd. (Circle). Showcases: Wm. Mason & Sons Ltd. Slate Surrounds: Bow Slate & Enamel Co. Ltd. Sound Equipment: Westrex Ltd. Stage Fittings: G. B. Kalee Ltd. Structural Steelwork: Dawsons Ltd. Steel Reinforcement: Indented Bar & Concrete Engineering Co. Ltd. Stone: Bath & Portland Stone Firms Ltd. (Portland). Kingston Concrete Products Ltd. (Reconstructed). Ticket Machines: Automaticket Ltd. Tiling (Faience): British Clay Products Ltd. Waterproofing (Asphalt): Limmer & Trinidad Lake Asphalt Co. Ltd. Windows (Metal): Williams & Williams Ltd.



Balcony foyer with entrance doors on left





*Entrance hall and main staircase with waiting space in background*



*Balcony side foyer*



*Entrance hall and main staircase*



## Coca-Cola Factory, Bristol

architect:

JAMES W. MACKINTOSH

general contractor:

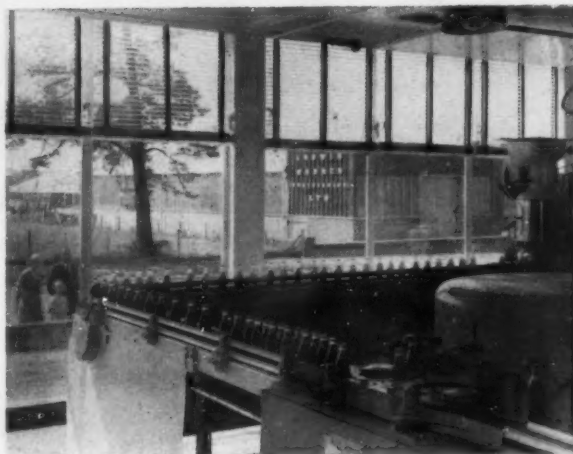
William Cowlin & Son Ltd.

**F**IRST completely new plant to be opened by the Coca-Cola Company in Britain is this factory at Brislington Trading Estate, Bristol. The bottles started rolling off the bottling machine on July 25 and the whole process inside the building can be studied by passers by, through the glass of the large window facing on to the street.

Cost of the building was £40,000 and Coca-Cola Southern Bottlers Ltd., who market the product in the south and west counties, already have plans to expand the new plant as and when the demand exceeds present bottling capacity. Construction time was some 18 months.



View from road

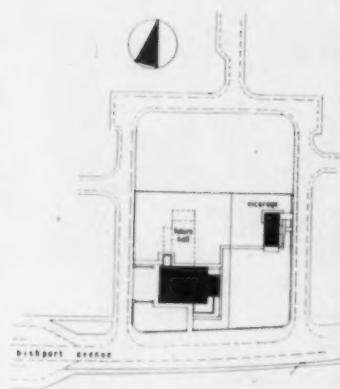


On right the bottle washer

Night view of window







## St. Andrew's Church Bristol



West elevation. The cross is of precast units post stressed on site

architects: BURROUGH AND HANNAM

assistant architect: HUGH INGRAM

structural engineers: CLARKE, NICHOLLS AND MARCEL

**T**HIS article describes the new church for 400 people which forms part of the ultimate group including a hall for 200 people which will be built on the north side.

At present the church is divided into place of worship and temporary hall; the sanctuary, vestries and part of the nave is used entirely for worship, the other half of the nave with temporary kitchen and lavatory accommodation is used as the hall.

The capacity of the reduced church is 120 seats.

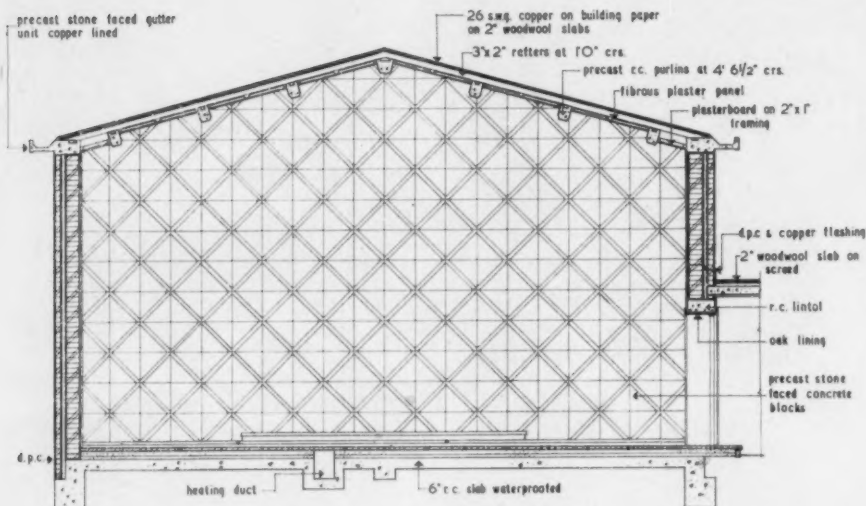
### Construction

The shrinkable nature of the clay subsoil, and the fact that part of the building stands over the old bed of a diverted stream, has made it necessary to support the building on short bore concrete piles. These piles vary in diameter from 18in to 24in. The excavation for the piles was carried out by means of mechanical earth auger, and the holes immediately filled with mass concrete.

The floor slab consists of a 5in reinforced concrete slab suspended on a system of reinforced concrete ground



**St.  
Andrew's  
Church  
Bristol**



CROSS SECTION LOOKING EAST SCALE: 1 IN = 8 FT

beams, which in turn span between the concrete piles. Sulphate resisting cement was used throughout the foundation work as a counter to the high sulphate content of the clay.

The roof is supported by means of precast reinforced concrete portal frames, cast on site, hoisted into position

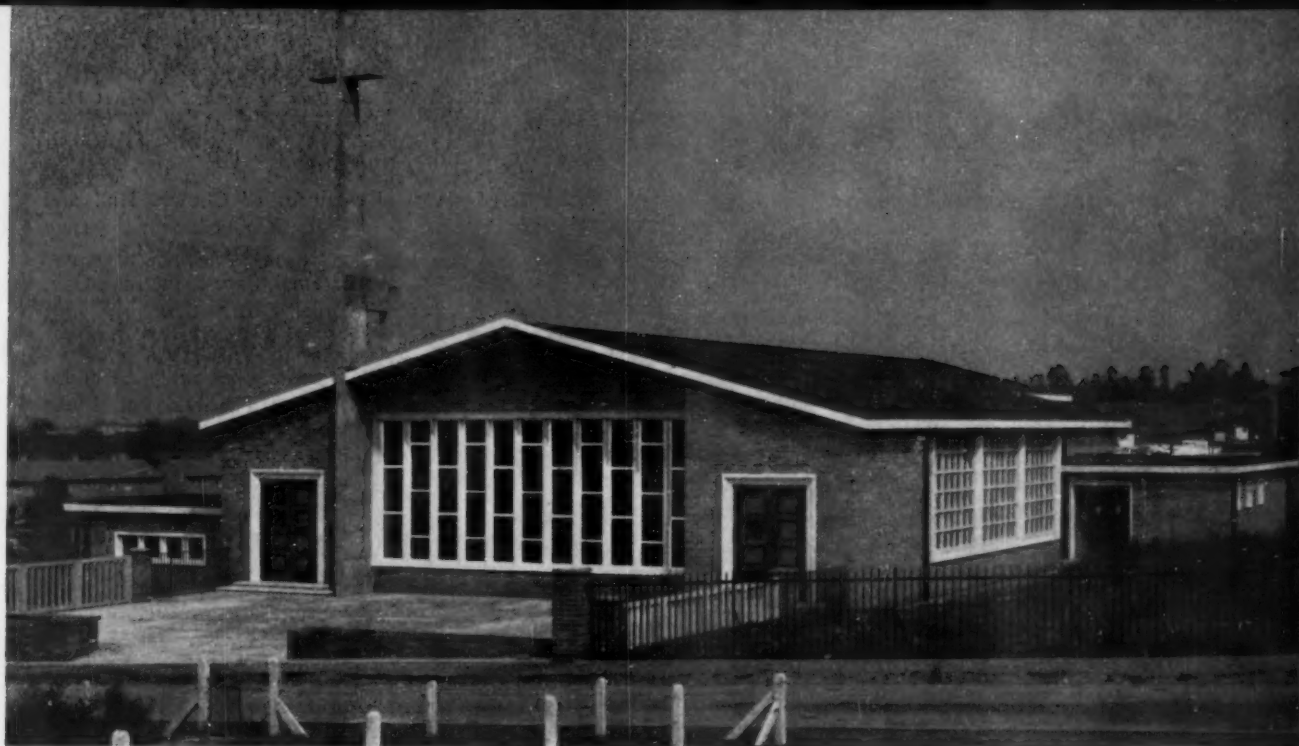
and jointed centrally. The base of each portal frame fits into a pocket in the top of each pile. The frames are linked by reinforced concrete purlins fixed into pockets in the frames.

External walls are generally of 11 in cavity brickwork built in Ibstock facing bricks. The east wall of the

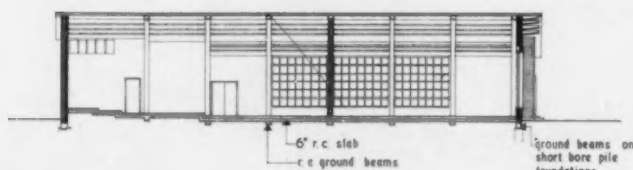
*Continued on page 300*



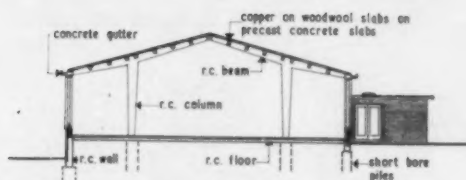




Looking east. Future hall to be on left of picture.

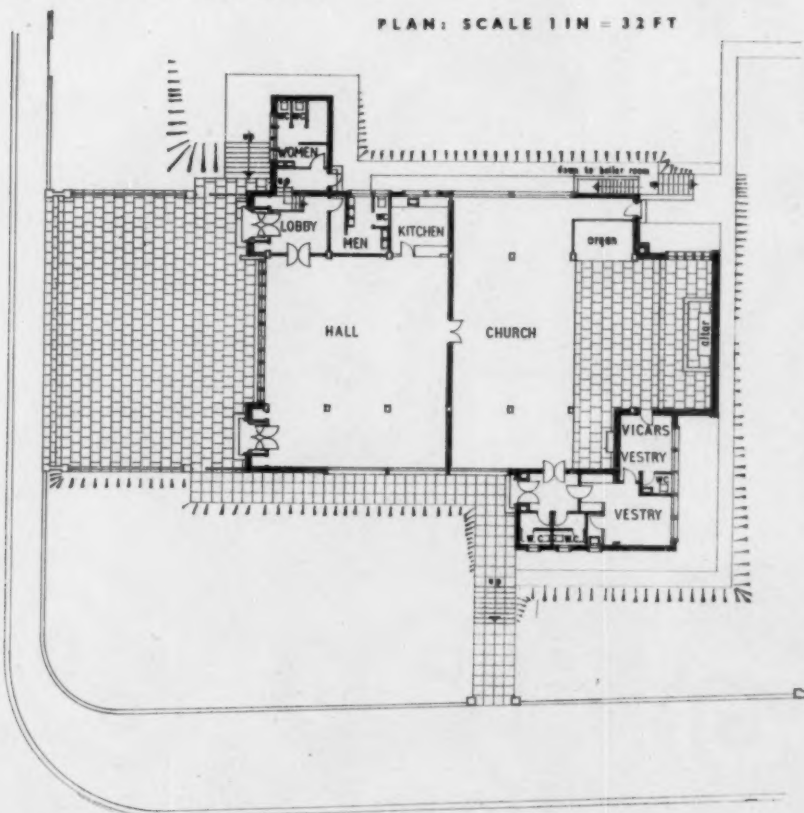


LONGITUDINAL SECTION



CROSS SECTION

PLAN: SCALE 1 IN = 32 FT



**General Contractors:**  
**J. & R. ROOFF LTD.**

Asphalting: The Asphalt Specialists Ltd. Balustrade (Steel): The St. Thomas Metal Works Ltd. Bricks (Facing): The Ibbstock Brick & Tile Co. Ltd. Concrete (Precast): T. W. Hopton & Sons Ltd. Concrete Cross: The Bristol Stone & Concrete Co. Ltd.; Samuel Thomas. Electrical Installation: Gough Bros. (Electrical) Ltd. Fibrous Plaster: A. C. V. Telling Ltd. Floors (Wood Block): Stevens & Adams Ltd. Font: The Bristol Stone & Concrete Co. Ltd. Furnishings: The Southmead Timber & Joinery Works Ltd. Gas Installation: South Western Gas Board. Gates and Fencing: H. L. Goodman & Son (Bristol) Ltd. Heating Installation: G. N. Haden & Sons Ltd. Insulation (Flooring): Calcon Ltd. Lightning Conductor: W. J. Furze & Co. Ltd. Paving: The Bristol Stone & Concrete Co. Ltd. Pews: The Southmead Timber & Joinery Works Ltd. Pulpit: The Bristol Stone & Concrete Co. Ltd. Reinforcement: The Square Grip Reinforcement Co. Ltd. Roofing (Copper): Arthur Scull & Son Ltd. Organ rebuilding: Percy Daniel & Co. Ltd. Windows (Metal): The Brunswick Metal Casement & Engineering Co. Ltd.; (Concrete Grid) J. A. King & Co. Ltd.



## St. Andrew's Church, Bristol

chancel is constructed of exposed aggregate concrete blocks externally, with stone faced concrete blocks internally. The latter have 'V' grooves cast in so as to form a pattern behind the altar.

The roof consists of 26 s.w.g. copper sheet laid on 2in Gypklith wood wool slabs. The wood wool slabs are supported on 3in x 2in timber rafters spanning between the reinforced concrete purlins. At the eaves, the copper is fixed into precast concrete gutters. These gutters are designed so as to span between the ends of the portal frames and so form lintols over the windows.

The flat roofs are constructed of reinforced concrete.

Windows are purpose made and standard metal. The large windows on either side of the nave are "Glascrète" reinforced concrete windows glazed with Chance's 'Spotlyte' Glass.

### Internal Finishes

Ceilings: Church: Acousti-Celotex tiles over the nave, with plasterboard and skim over the aisles. Fibrous plaster panels over the sanctuary. The panels are painted crimson with the ribs gold. Hall: Acousti-Celotex tiles and plaster board.

Floors: Chancel and Entrance lobbies: 2in Portland

stone faced slabs. Remainder of Church, Hall and Vestries; 1in Iroko wood block. Cloakrooms: Quarry tiles.

Joinery, etc.: Doors: External, Sapele, Internal, Oak, Skirtings: Oak. Cills: Internal, Quarry tiles.

### Services

The church and hall are entirely heated by embedded floor panels heated by hot water. The welded steel tube panels were laid on top of a layer of 1½in 'Celcon' insulating concrete, and then covered with a 1½in of cement sand screed to receive the floor finish. The boilers are oil fired. Hot water supply: 'Ascot' hot water heaters. Emergency lighting: Gas.

### Furnishings

The organ was removed from another church, rebuilt and fitted into a new casing. The screen in front of the organ is formed of 2in diameter polished Sapele poles. All the pews and other furniture are made in Sapele. The pulpit was made of stone faced precast concrete.

The external cross was made with precast concrete units post stressed on site and hoisted into position in one piece. The cross was fixed into a reinforced concrete pocket below ground level.

*Interior of the present church. Temporary wall on left will be removed later.*





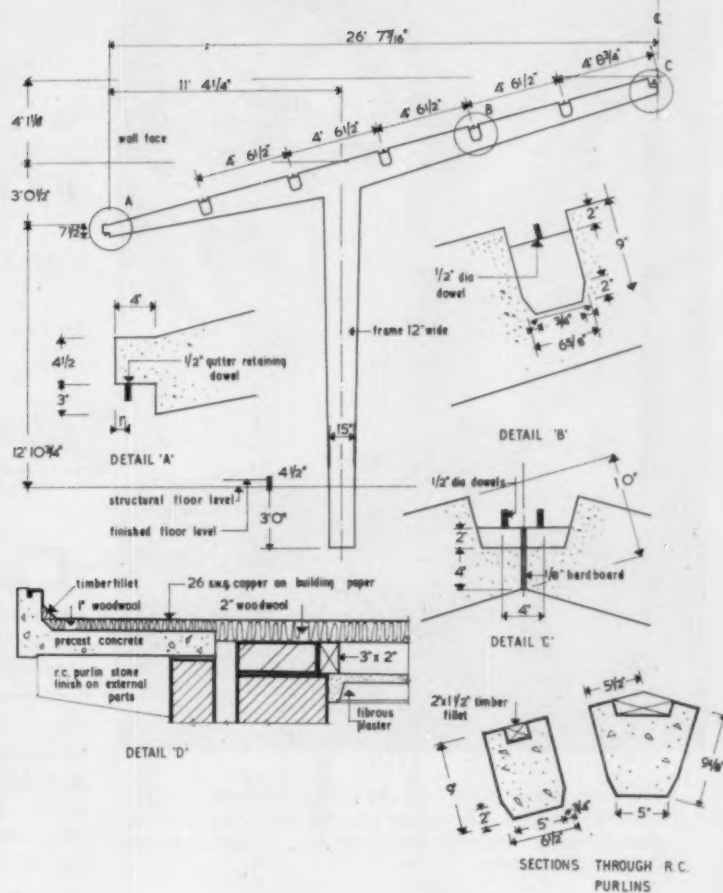


Looking north towards chancel

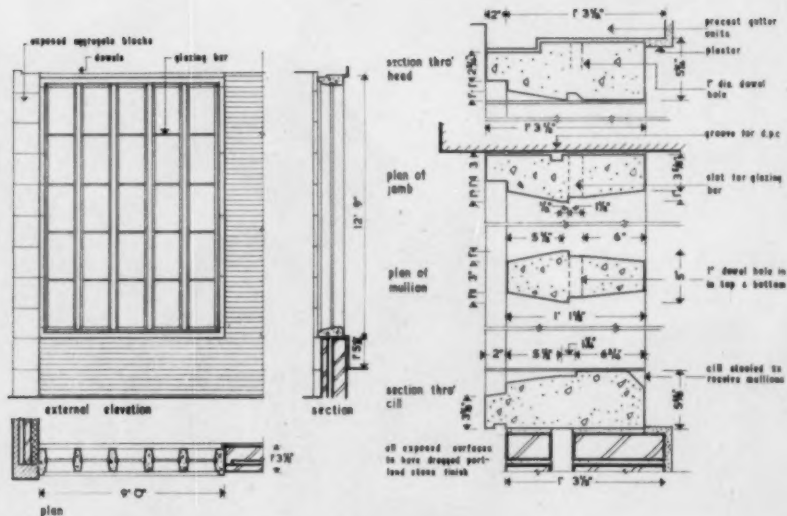
The pulpit



301



PORTAL FRAME DETAILS  
SCALE: 1 IN = 2 FT & 12 FT



DETAIL OF CHANCEL WINDOW  
SCALE: 1 IN = 6 FT & 1/12 F.S.



## WALFORD FARM INSTITUTE

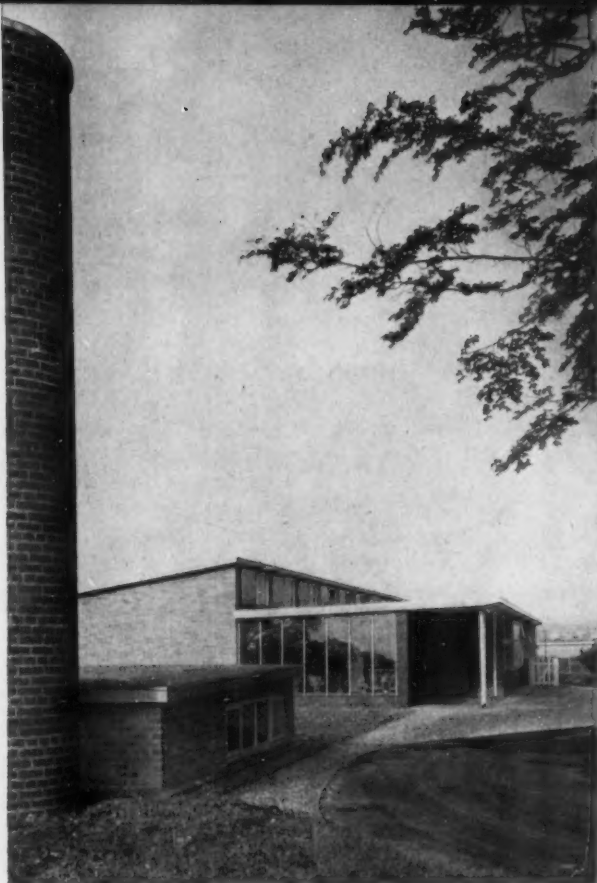
### INSTRUCTIONAL BLOCK

architect: C. H. SIMMONS

Salop County Architect

chief assistant architect: T. C. Ralph

assistant architect: W. S. Walker



*The instructional block from the east showing site of future assembly hall and temporary glazing where doors will be placed between entrance and main hall. On left of picture is circular chimney.*

**T**HE Institute at Walford, eight miles from Shrewsbury, provides for a one-year course of instruction for young farmers.

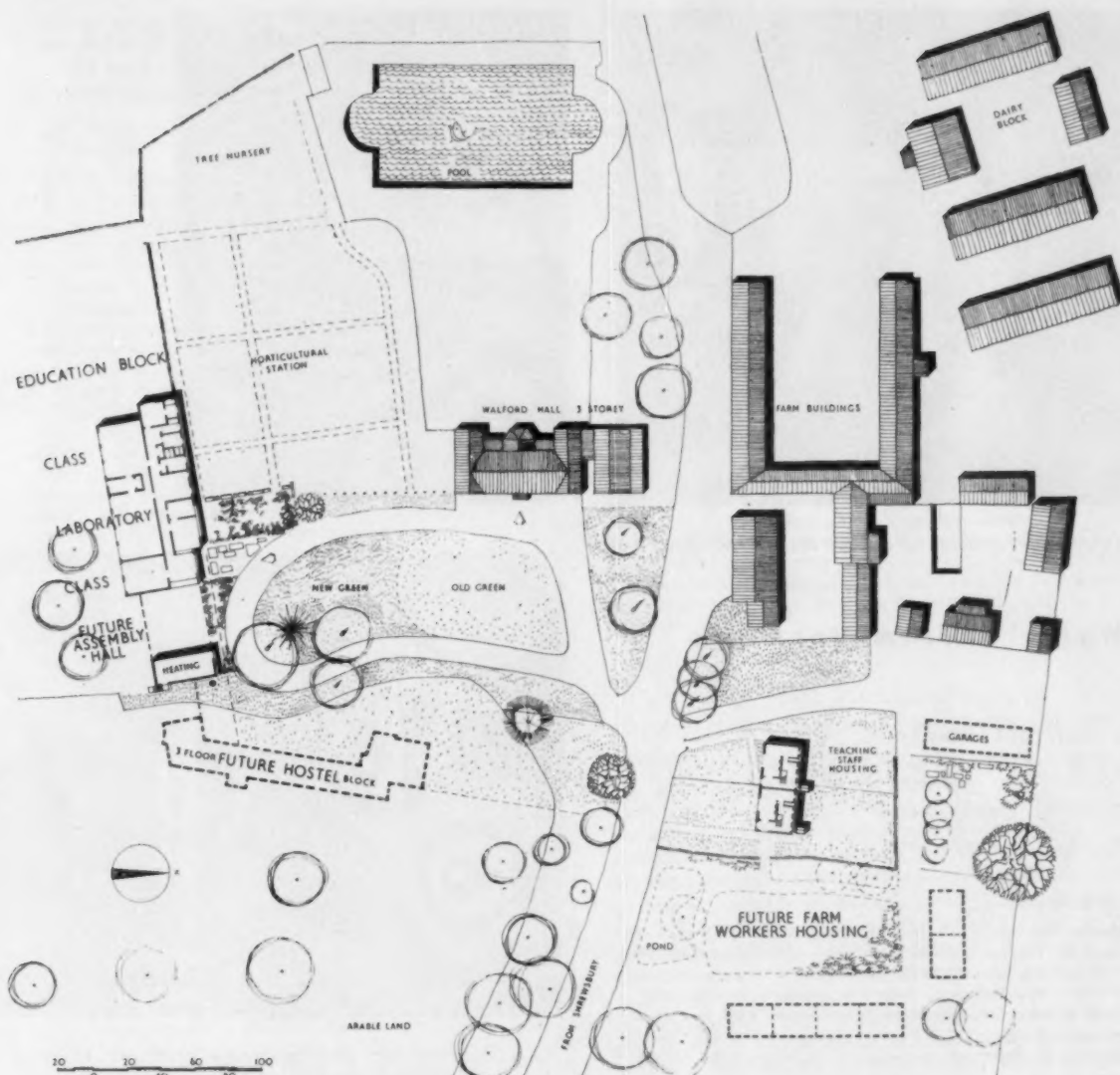
The site is the Walford Hall Estate, of which the three-storey hall at present provides for some staff accommodation and other ancillaries. The new Instructional Block contains classrooms, laboratory and administration offices. An extension will include an assembly hall with stage over the new boiler house.

The students' living accommodation with dining room, library and common rooms now based at Walford Manor, will some time be removed to a new three-

*Instructional block from South East*







GENERAL LAYOUT PLAN

storey hostel adjoining the Instructional Block, by which time the Hall across the green will be altered to house all dining facilities and common rooms for the staff, thus completing the nucleus about the landscaped green.

Across the road on the farm side, are two new teaching staff houses. Plans provide for a group of farm workers' cottages to the east, and to the west a farm machinery instructional building and a grain drying plant which will complete the Institute as envisaged at the present time.

An attempt has been made to provide up-to-date facilities in a robust rural vernacular, the new tarmac drive having stone pavings, cobbled area

and a random rubble stone wall, with a timber pale fence binding the old and the new into a coherent group.

The new block is built of load bearing brickwork. The roof is constructed of timber joists covered with "Stramit" board and where the spans are over 20 feet, supported on steel lattice beams. The teaching rooms have wood wool ceilings; the remainder are insulation board or plaster board papered. Floor finishes are hardwood block, "Korkoid," or concrete tiles. The windows are timber sashes and casements.

The circular chimney stack rises through a covered link between the teaching block and the hostel.

The final contract figure amounted to £18,441.

*continued overleaf*





Corridor and general office from the entrance hall



Looking into the laboratory from the corridor

## Walford Farm Institute

### Quantity Surveyors:

G. D. Walford & Partners

### General Contractor:

W. A. Sherratt Ltd.

### Sub-Contractors:

Heating: Scull Bros. Ltd., Shrewsbury. Lighting: Cooper & Co. (Shrewsbury) Ltd. Chimney: Chimneys Ltd., London, S.W.1. Lattice steelwork: T. Partridge & Co. Ltd., Walsall. Felt roofing: W. Briggs & Co. Ltd., Liverpool. Wood block floors: Hollis Bros. Ltd., Hull. Laboratory fittings: Griffin & George Ltd., Birmingham. Timber windows: E. W. King (Newport) Ltd. Roadworks: C. J. Pearce & Co., Dawley. Sanitary fittings: Shanks & Co., Manchester. Ironmongery: A. G. Roberts & Co., London.



Main entrance with temporary infilling in place of doors to the future hall, on left of cut



The west end of the instructional block. Window gives light to the principal's office.



## LIBRARY NOTES

## The Modern Church

By Edward D. Mills. Published by the Architectural Press, 30s.

THE publication of a book called *The Modern Church* by the Architectural Press suggests a tribute to the few pioneers who have dared to design church buildings in the "contemporary" style. But it also shows that, contrary to widespread belief, the modern church as an institution or institutions is very much alive, sufficiently so to commission work from architects as revolutionary to the man-in-the-pew as le Corbusier, Mies van der Rohe and Basil Spence must surely be—to name only a few of those famous "contemporary" architects whose work is illustrated in this book. And on top of this we find ecclesiastical patrons employing artists like Matisse and Léger, and in our own country, Sutherland and Moore to provide church furnishings equally "advanced."

We usually think of the twentieth century as a time when the church counts for far less than in almost any preceding age since the conversion of Europe. This is a question difficult to determine—we are inclined to exaggerate its influence in the past as we minimise it in the present—but it is surely true that more churches have been built in Western Europe during the last fifty years than in any half-century since the end of the Middle Ages. And when one adds the churches built in the U.S.A. and remembers too that the twentieth century has seen countless churches built in Asia and Africa where there were none at all before, it looks as if ours is as much a church-building as a cinema-building or power-station-building age! The meagre towers of modern churches are still the only monumental buildings rising above the rooftops of many a housing estate. So there is need for a handbook on the subject, and Edward Mills's well produced volume will be indispensable for churchmen and architects alike.

For whereas almost every medieval and Renaissance church is to our way of thinking still worth looking at, pitifully little of this vast building programme of modern churches is likely to give our descendants much pleasure; unless a book like this is widely read by all the ecclesiastical authorities who have to do with church extension schemes. No Trustees or building committee members should be allowed to begin some new church building project without first studying this book, to get a new idea of what a modern church can be!

The idea that a church must be Gothic dies hard. We have super-Gothic at Liverpool, neo-Gothic at Guildford, and, alas, unlimited sub-Gothic like that church or chapel round the corner; only diversified by a minority of modern "classical" buildings which are neither ancient nor modern. Merely to look through the copious illustrations of *The Modern Church* would be to realize that a church need no longer look archaic, or incongruous in surroundings like those of the South Bank of 1951 or the new Coventry of 1956. We have been late in this country to see the moral of this for the church-builder today, and far too slow to put to the service of the church the new techniques and materials which truly modern architecture can provide. I remember visiting Frankfurt-on-Main a quarter of a century ago and finding a dozen or so "contemporary" churches in the suburbs of that one city, when there were hardly a dozen to be found in the whole of England. Now at last we are beginning to catch up on the best Continental and North and South American work, not least in some of Mr. Mills's own designs. Of course there are gaps in the illustrations—one rather dull village church does not do justice to the best German work; and I miss one of my favourite modern churches, Werner Moser's Protestant Church at Zürich with its masterly solution of the difficult problem that confronts all designers of what in this country would be called Free Churches—what is to be the focal point? Altar, pulpit or choir?

In this beautiful church all the competing features receive their due!

But Mr. Mills's book is much more than a picture book for laymen. It appears to be also an invaluable handbook for architects lucky enough to be given an ecclesiastical assignment. There are valuable sections on practical considerations like acoustics and lighting and heating; and the architect is guided safely and soundly through the intricacies of the different liturgical arrangements in Anglican, Free and Roman Catholic Churches (though the Bishop's Throne is usually found on the south side of the choir of an Anglican Cathedral). One of the merits of the book is that the author deals not only with the building for worship, but with all the ancillary premises for the week-night activities of a church which is a real centre of community life. He overlooks no essential details—not even that the w.c. in the minister's vestry should be fitted with silent flushing! Nor is the importance of storage for chairs forgotten.

But when all is said and done. I have yet to find a modern church as "contemporary" as, say, the ancient Cathedral of Exeter—full of light and as functional as they could make it. (Beside it the new Exeter of inflated and superficial neo-Georgian looks dated already.) If however what we see in this book is the first Romanesque phase of our modern church architecture (just a little clumsy?) what glories are to come when we reach our High Gothic! Judging from the illustrations (and others we have seen) the designers of stained glass and tapestry, the sculptors and the painters have already got there and are ready to move in.

D. W.

## Eric Mendelsohn

By Arnold Whittick. Leonard Hill (books) Ltd., 63/- net.

THIS new edition of Mr. Whittick's book on the German architect, Eric Mendelsohn, will come as a disappointment to many, who hoped that the sixteen years which have intervened since it was first published, would have done anything to modify Mr. Whittick's conviction that Mendelsohn was the important architect of the modern movement. Impartial scholarship does not suggest that this was the case, and luckily for the good standing of both Mendelsohn and Mr. Whittick, few people seem to have taken the contention of the book seriously, and followed in the Master's footsteps.

Unfortunately, Mr. Whittick's main defence of Mendelsohn is all too clearly based on a famous late nineteenth-century development of academic theory. This is the theory of Empathy, by which we are supposed to enjoy works of visual art, not so much with our eye or brain, as with our muscles! Put baldly like this, the theory sounds silly. In fact, it had a reasonable, if provincial, origin. A number of works of Art, buildings among them, only look right one way up. In addition, works of sculpture are ponderated rather than simply pondered, in the mind's eye; which means to say that they are to some extent accomplished and enjoyed by the same process we use when we say that the statue of an athlete about to execute a movement is awkward or impossible. According to the theory of Empathy, which takes Renaissance Humanism in architecture literally, to mean a kind of anthropomorphism, we do this with buildings as well as with sculpture and painting. It was against this kind of thing, that the Dutch and Russian constructivists advanced their anti-gravitational and centrifugal schemes of composition; and it is a bit hard to see just how Mendelsohn is to be made to fit into the Modern Movement, to which he obviously belongs, if he is also to be explained by a theory of esthetic behaviourism, which the men and women who practically invented modern architecture would have most disapproved.



From his early work, particularly the Einstein tower, the various sketches for industrial and symbolic buildings, and those odd fantastic drawings which are apparently meant to put us in mind of pieces of music by Bach and Beethoven, it seems clear that Mendelsohn was content to follow, unobtrusively, and sometimes several steps behind, some of the main artistic movements in Europe of his own and earlier days. The influence of German Expressionism comes out quite clearly in the Einstein tower; that of Italian Futurism in many of the sketches for industrial plant. The "musical" sketches belong to the late nineteenth-century Symbolist theory, by which all arts were supposed to develop toward a "musical" state of abstraction, but all reproducing the same "esthetic" emotion. It was not until late in the 'twenties, when the spadework of the new movements had already been done by men such as Le Corbusier, Mies, Gropius and Oud, that Mendelsohn caught up, and began producing many buildings of charm and competence. Only, to judge by Mr. Whittick's description of his method of composition, he seems always to have decided on the envelope of the building first, and in picturesque terms: the planning is fitted in afterwards as best it can be.

The De la Warr pavilion is still among our best buildings. But it is unfortunate that so much good effort should have been expended on what is, after all, the first extensive book on any modern architect, without making it clear that there were architects of greater resourcefulness and impact, in the formation of what has come to be called the International Style: Mendelsohn was not the prime mover in this, however personally delightful his work, and Mr. Whittick could have made this clear.

T. S.

### The Structure of Wood

By F. W. Jane, PH.D., D.Sc., Prof. of Bot. Published by A. & C. Black, London.

ON reading the preface of this book, the general reader may be discouraged, or may dismiss it as being for students possessing a very specialised knowledge. In writing the book, the author admits to having the student of timber technology in mind, but this is liable to give a wrong impression, since there is much to interest and enlighten all users of timber in this excellent book.

The unexpected behaviour of timbers under certain circumstances, the variations which can occur even in one piece of wood and the reasons for figure occurring are all explained and illustrated in the appropriate chapters, such as the gross structure of wood; the variability of wood abnormal and diseased; figure in wood; compression wood and tension wood in softwoods and hardwoods respectively, a defect to which much of the unpredictable behaviour of certain pieces of timber can be attributed is discussed very fully.

The chapters dealing with the identification of timbers, whilst requiring some specialised knowledge, are extremely interesting, particularly those entitled "Specific Difference in Timbers", which cover the teak, oak and walnut substitutes. From the illustrations and descriptions given it is possible for the uninitiated to determine whether the timbers specified has been supplied correctly. This chapter and those previously mentioned justify the inclusion of the book on all wood users' and suppliers' shelves, for today with the steady increase in Timber Technology, Engineering and Laminating it is essential to understand the composition of the raw material, its advantages and disadvantages.

The production of the book is of a very high class, and the photographs of all types with which it is profusely illustrated, over 500 in all, are excellent.

R. P. WOODS.

### The Parish of St. Mary Lambeth

Survey of London, Vol. xxvi, 226 pp. including 63 plans and line drawings and 75 pp. of plates. General Editor: F. H. W. Sheppard. The Athlone Press, University of London for the London County Council: 1956. 40s.

THIS is the latest volume of the monumental survey of London which on the appointment of a new general editor is now swinging into a vigorous middle age. In quality of production it is in some ways the best so far published. A new format has been adopted with double columns and there is a greater proportion of illustrations to text than in any of the previous volumes.

In addition to their general social and historical interest these volumes are performing a valuable service in recording the fabric of a London which is gradually being replaced by modern buildings. In the area covered by this volume for example very extensive redevelopment for housing and educational purposes has already taken place and it seems likely that in a generation large areas will have an entirely new look, interspersed with pockets of the best of the old development given a new lease of life by rehabilitation.

It is highly desirable that this new development should marry happily to the old and the value of a volume of this kind to an architect-planner is that it provides the essential background information to enable him to visualise the growth and change of London as a continuous process of development.

G. C. L.

### Denmark

By Sacheverell Sitwell, Batsford, 21s.

THIS book, despite its title, is not a full account of the country, or even a comprehensive survey of architecture and fine arts (it says nothing, for instance, of bacon, butter, porcelain, or Jensen silver, let alone modern Danish architecture), but the record, charmingly and characteristically done, of a particular journey made not long ago. It is a highly personal, subjective record, concerning itself with the aristocratic rather than with the bourgeois or agricultural aspects of Danish life. It well shows how constantly, and skilfully, its author moves in, and re-creates, the atmosphere of another age.

Mr. Sitwell was surprised and delighted, as we too must be, to find the Rosencrantz family still flourishing on their ancestral estates, and to visit the tombs of the Gyldenstjernes. His cultural references and reminiscences are typically numerous, sometimes delicate and apposite, occasionally diffuse so that one could wish the space given over to more information about what there is to see.

Denmark was long the most sophisticated and "cultural" of the Scandinavian countries. Its architecture, whether Romanesque or Gothic, was well within the North German province of splendid brickwork. Later, with such architects as Steenwinckel at work on castles and other buildings, the prevalent influence was Dutch. The Baroque-Rococo age left superb church monuments and, in the court quarter of Copenhagen, the finely monumental architecture of the Danish architect Eigtved. Splendid plaster ceilings were wrought by *stuccatori* from the Ticino. Late in the eighteenth century the influence of Adam, Hepplewhite, and Wedgwood was strong on furniture and ceramics. This last point Mr. Sitwell passes by, but he has interesting things to say on the work of the Swedish-born painter Pilo. Yet on the whole this book of travel gives no more than an *aperitif* to the subject, a hint of what there is in much of Denmark to stimulate enquiry and a perceptive visit of one's own. One omission makes the book less easy than it should be to use. The geography of Denmark is complex, an amalgam of mainland and numerous isles. Mr. Sitwell gives us many word-pictures, but no map; in such a context his book comes near to being a princeless Hamlet.

BRYAN LITTLE



## Structural Insulating Glass

AN interesting lecture was recently given at the Leeds School of Architecture by Mr. Edward Elton, of Plyglass Ltd., on the subject of structural insulating glasses. His purpose was no doubt, to paint the rosiest possible picture for the products with which he is concerned but his paper certainly included a good deal of information which does not seem to be generally available and which has considerable influence on the design of buildings using large quantities of this type of material. I am sorry that he did not say more about the problem of ensuring that the jointing materials, which are so vitally important, will be adequate in quality as these seem to be causing some second thoughts among would-be users. Twenty years ago users were assured that mastic materials were available which would virtually last for ever but it certainly has not proved to be a fact, thus if structural insulating glasses are to be widely used a life without replacement equal to that of the framing is essential as without such a life the virtual reconstruction of a building might be involved.

It may be that there are doubts in the minds of some on account of the description of these materials as there is an idea that a material described as "structural" may be capable of load-bearing, which in this case the material certainly does not set out to achieve. In his general introduction Mr. Elton suggested that the increased use of these materials has partly occurred on account of the psychological aspects of what has become known as a "picture" window. Rooms have become smaller and unless a view is provided which can fill all or most of the visual field of the human pair of eyes there are chances of people suffering from claustrophobia. He suggests that if it were not for the large areas of glass now used many modern rooms could not otherwise be described than as "pokey little holes." He quite naturally doubts that with present building costs and the need to avoid further inroads on agricultural land room sizes are likely to grow much larger.

Being interested, as Mr. Elton obviously is, on the use of larger areas of glass he may not appreciate that too great a loss of wall space can also be a nuisance as there becomes inadequate space for furniture, pictures and the like. It is true that the problem, which in the past existed, of the increased heat loss due to increased window areas is overcome by new developments such as double glazing units. He points out that such palliatives as heavy curtaining as a means of reducing heat losses is of small value if the whole 24-hour cycle is considered. Structural insulating glasses have been developed as an aid

to satisfy several needs—vision, daylight and light-weight insulation.

Mr. Elton pointed out that on average a person looking straight ahead is either acutely or vaguely conscious of everything within an ellipse the upper limit of which is 55 deg. above the absolute horizon and the lower limit 70 deg. below the lateral limits within an arc of 150 deg. He personally favoured the provision of vision strips in places where people are normally seated at a level between 2ft 6in and 6ft 6in above the floor but if people are in the habit of standing in a particular interior he suggested that the 6ft 6in upper cut-off is probably too low for the comfort of anyone standing more than 10ft from the window.

Mr. Elton suggested that it was easy to become excited about the flexibility, in the design sense, of either the curtain wall or the floor to floor window wall and consequently those who are deeply involved in the production of structural insulating glasses recently had to ask themselves whether they were dealing with a fashion or with an inevitable development. It appears that they have decided that structural insulating glasses were a development and not a fashion because they permitted more rapid building, the conservation of land, involved less weight and permitted the maximum use of floor space; they found in fact that they had allies among those who manufactured the framing to carry these glasses in the metal, timber and reinforced concrete spheres.

Mr. Elton pointed out that there were certain fundamental considerations, among these were that glass rarely breaks through an inherent weakness once it has been fixed and that the overwhelming majority of cases of breakages have been traced back either to the edges having been damaged before or during fixing, or to the pinching of the glass. There seems little doubt from Mr. Elton's remarks that specialist glaziers are almost essential to avoid trouble, which is a factor to be borne in mind when writing specifications. Of the causes mentioned tight fixing of glass in the framing is by far the greater source of trouble. To overcome this trouble Mr. Elton appears to have illustrated his lecture by showing the preventative measure required. The clearances provided in these illustrations must have been such as are necessary to allow the panels to enter the frames easily; to take care of the expansion differentials between the glass and the framing; to provide thermal barriers between the edges of the glass and the framework when this is of metal; to cushion the glass against minor movements in the framework so that these are not carried into the glass, and for the deflec-

tions caused, especially in large panels, by high wind pressures.

Mr. Elton had a good deal to say about the use of large coloured glass slabs which had brought the manufacturers up against the unexpected but now rather obvious phenomenon of the stressed edge. Glass, being a poor conductor of heat, will show an uneven distribution of temperature if it is only partly exposed to the sun or other radiant heat sources; the temperature gradients so formed become steeper as the colour is deepened. Owing to the time-lag before an equilibrium is reached, the immediate effect of the heating up by direct sunshine of the exposed portion is to place the edges under tension and unless these are in good condition they may yield at their weakest point when cracks will form which, as a rule, develop slowly in the earliest stages but may well finish with a loud report. Apparently it takes days or even weeks before a small fissure along the edge develops into a visible crack. Mr. Elton recommended that a variety of different clearances need to be prescribed according to panel sizes, panel thicknesses, material of which the frame is made and the colour of the infilling. On the whole it appears best to prescribe clearance for the worst conceivable conditions and let the individual designer make modifications for less severe conditions if he knows enough to do so.

Since information such as the foregoing appears now to be available it would seem highly desirable that this is incorporated in a B.S. Code of Practice so that it could be made generally available to designers and to those responsible for erection and thus provide an aid in the elimination of pitfalls into which obviously some have already fallen. The information which Mr. Elton gave on expansion differentials is extremely interesting. He pointed out that the thermal expansion coefficient of glass may be taken as 0.000008 per 1 deg. C., while against this figure of 8-millionths, aluminium expands at a rate of 24 millionths per 1 deg. C., steel between 10 and 12 millionths but timber, with certain exceptions, moves negligibly parallel to its fibres.

Mr. Elton also pointed out that in dealing with perimeter clearances it is important to remember that horizontal framed members may sag, particularly if they are made of aluminium, while galvanized steel members, though more rigid, may have a pimply inner surface. Furthermore the bottom edge of the glazing units, resting as it should on lead or hard wood setting blocks, is firmly fixed thus the whole vertical expansions has to be allowed for along the top edge. He suggests that the horizontal expansion can be assumed



## The Ring Circuit in Domestic Electrical Installations

By T. C. GILBERT

M.I.E.E.

THE architect arranging for a domestic electrical installation is faced with two conflicting requirements: (a) the installation must be adequate for its purpose, and in these days of widespread use of portable appliances and the vogue of lighting by means of floor or small standard lamps, this means a large number of socket outlets; and (b) the cost must be kept within reasonable bounds. In the past, different types of sockets and plugs were used for different purposes, the 2-amp. for lighting, the 5-amp. for small power, and the 15-amp. for radiators and similar appliances, and this meant separate circuits with consequent higher costs.

Although all the old restrictions on wiring methods and the different uses of socket outlets have now been swept away it is noted that many architects still stick to the older methods usually through inadvertence. It is pointed out that every time "15-amp. socket outlets" are mentioned in a specification then this postulates a continuation of the older and more expensive wiring methods; to all intents and purposes the old rating of 15-amps. for socket outlets is obsolete, but if it is mentioned then heavy costs are inescapable. That the practice is widespread may be gathered from the fact that it appears even in the R.I.B.A. Appendix to the Bailey Report, "Quicker Completion of House Interiors", and if individual architects repeat this requirement then they are lost so far as lower installation costs are concerned.

In this country the traditional system of wiring socket outlets was in groups for lighting purposes, but—and this is where the heavy costs came in—only one "power", or 15-amp., socket outlet was permitted per circuit, with its own fuseway on the distribution board. This method is

shown diagrammatically in Fig. 1, which shows eight 15-amp. power socket outlets—as used for electric radiators, for instance—with wiring radiating from the central distribution board; each cable run consists of 7/0.029 conductors, at least, and each of the 15-amp. fuseways supply only one point. The wiring regulations assumed that any diversity of use was a rather unknown factor, and it was always possible that the consumer would plug in eight separate radiators. This whole installation would be controlled by a 60-amp. main switchfuse, at least, more probably one of 100-amp. capacity.

Eight such socket outlets was not extravagant allowance for a reasonably-sized house, but the cost of installation was very high. If it were thought that at any time additional points would be required then spare fuseways must be left on the board to accommodate the new runs, and complete new wiring had to be run from the additional point back to the board, with consequent disturbance to the building or its decorations. Prior to 1939 the cost of this eight-way power installation might be £30, apart from the cost of the lighting installation with its own system of socket outlets. Further, the client was provided with at least two, and sometimes three, different sizes of socket and plugs, which militated against convenience and the easy changing of lamps and equipment from one position to another.

Immediately after the War, however, it was realised that if the more complete electrification of houses was to become an accomplished fact then wiring costs must be reduced. This was accomplished with the standardisation of a new socket outlet of 13-amp. rating and the introduction of the ring circuit, steps which at once swept away both

## Structural Insulating Glass

in practice be equal on both sides of a vertical centre line, but I wonder if this is so in practice. He pointed out that if the edges of a heated glass plate are chilled through direct contact with a metal frame there is a considerable risk of small fissures developing at the point of contact, and that these fissures will, due to other causes, such as vibration, develop into cracks. He reminded his listeners that glass plates will accept a considerable amount of bowing but that they are very vulnerable to twist.

Mr. Elton said that as there is always considerable doubt about the reliability of unsupervised labour and consequently there has been a tendency on both sides of the Atlantic to consider pre-glazing. This pre-glazing is the insertion of glass units into light sub-frames, generally of extruded aluminium, which are designed to fit rapidly and easily into the normal metal or timber framing; such pre-glazing tends to eliminate another hazard the "shelled edge" which results from the way that glass

is handled during the process of fixing. This condition is caused by impact and by the placing of bare putty knives or screw-drivers between the panel and the framing to centre panels thus causing stress concentrations along those portions of the edges where the thickness has been locally reduced by shelling when they are placed under conditions of slight tension.

The speaker referred to a Canadian development in which a complete wall panel gives a "U" value of 0.09. This panel is completely prefabricated and is inserted into a curtain wall structure with a further clearance. It is interesting, from the point of view of the glass maker that the glass is placed within the sub-frame under controlled factory conditions and without interference from the weather, thus the risks on site are greatly reduced. He pointed out that we do not require "U" values as low as the foregoing in this country but the idea indicates a very useful line of development; he further suggested that it seemed to require a high degree of standardisation on each job; he said that no suggestion had been made in Canada that the panels had to conform to a general module and that if the job is big enough all that is necessary is to have a module for the building itself and "plenty of warning to

the supplier" thus it would seem that if there is to be such a development it is unlikely to be economic unless there is a range of pre-determined sizes which designers can use, otherwise it seems certain there will be considerable delay before buildings can be glazed.

Mr. Elton seemed to see a good deal of possibility in the development of timber framing for curtain or window walls without in fact an accompanying reduction on the legitimate use of metal frames. He appeared to envisage this development in the domestic sector of building.

As mentioned earlier the use of structural insulating glasses is very essentially tied to the development of curtain walling which as yet is a field in which the majority of designers are completely in the hands of the supplying industries, thus it would certainly seem to be very advantageous if the considerable quantity of information now available could be assembled in such a way, perhaps through a Code of Practice or through some degree of standardisation, that the essential information is made available to architects and the building contractors.

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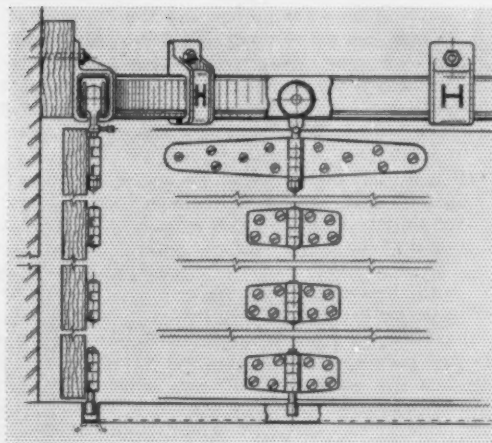
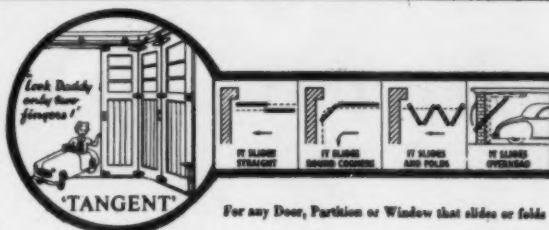


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## The Ring Circuit

heavy costs and consumer inconvenience. The simplicity of this new arrangement is shown in Fig. 2, which also allows for eight "power" points, and it will first be noted that the central distribution board has been eliminated entirely; in place of the old 60-amp. or 100-amp. controlling main switchfuse there is now merely a 30-amp. switch-

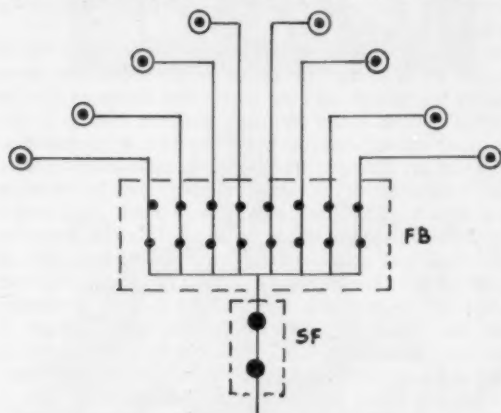


Fig. 1. The traditional method for installing eight 15-amp. heating points, which could not normally be used for lighting purposes. FB. Central distribution fuseboard. SF. Controlling main switchfuse, 60-100 amp. Each point wired separately with 7/.029 cable through a separate 15-amp. fuseway. If additional points were required at any time a new complete run of cable would be made from the point to the central fuseboard, where another 15-amp. fuseway would be provided to accommodate the demand.

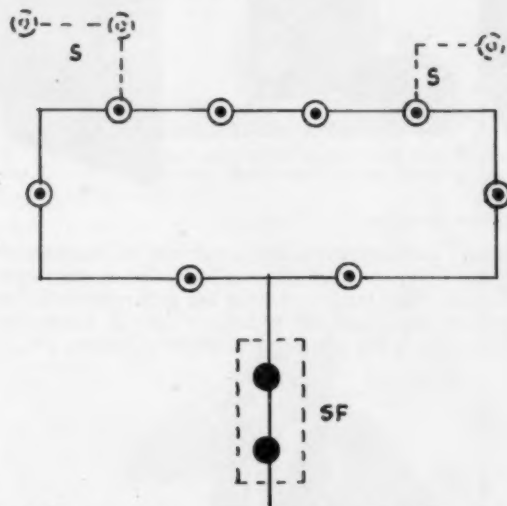


Fig. 2. The "ring circuit" method of installing eight 13-amp. points, which may be used for heating or lighting as required. S. S. Spur circuits. SF. Controlling switchfuse, 30-amp. only. Instead of a separate run of cable to each point the ring circuit, again of 7/.029 cable, is run through all eight points, being fed from the main switchfuse, or 30-amp. way on consumer's control unit, at both ends. Additional points if required are installed from the nearest existing point by means of spur circuits, although spurs may also be installed with the original ring if found convenient and economical.

fuse—or a 30-amp. way on the consumer's control unit—in control of all eight points. This represents a saving of at least 50% over the old method, but further economies are inherent in the new method, for instead of one separate run of 7/.029 cable to each point there is now merely a ring of the same size of cable linking up all the points. This cable ring is, however, fed from the main at both ends.

Although only eight points are shown in Fig. 2, for comparison with Fig. 1, the ring circuit is by no means limited to this small number. Current wiring regulations permit an unlimited number of 13-amp. socket outlets to be connected to the ring if the floor area of the house does not exceed 1,000 sq. ft., but otherwise the limit is ten; there may, of course, be two or more ring circuits, each with ten socket outlets, in the same building. Not all of these points need be on the ring proper, but may be wired by what are known as "spur" extensions from the ring, shown in dotted lines in Fig. 2. The full regulation requirements for socket outlets are shown in Table C (page 24 of the 13th Edition) and the preponderating advantages of the ring circuit are apparent from this Table. It will be noted that the provision of an additional socket outlet at any position costs practically only the price of the accessory, assuming the ring cables are running near the new point.

A further advantage of the ring circuit is, that the outlets may be used indiscriminately for lighting, small or heavy power, as required; that is, up to 13 amps. per outlet, which corresponds to 3 kilowatts at 230 volts, and normally this is the largest size of electric radiator used in domestic premises. In addition, the provision of additional points at any time merely involves the running of a spur circuit from any existing socket outlet, the only restriction being that not more than two socket outlets may be connected to any one spur circuit. Differences in loading of whatever is connected to any given outlet are accommodated by means of local fuses contained in the plugs themselves, and thus anything between an electric clock and a 3-kilowatt radiator may be used from any point. These local fuses are made in three sizes, 3-, 7-, and 13-amps., and are interchangeable; the client fitting his own fuses is assisted by the colour coding, the 3-amp. fuses being grey, the 7-amp. yellow and the 13-amp. brown.

Obviously, as only plugs with accommodation for fuses may be used with the ring circuit, this means the scrapping of the old three sizes, the 2-, 5-, and 15-amp. to BS 546, sockets and plugs, and a new design was evolved; it is imperative that only this new flat-pin type socket and plug BS 1363, be used with a ring circuit. A large range of suitable accessories is available, some patterns of which are shown in the accompanying illustrations, and from which the new types will be easily recognisable. One possible snag is that the replacement of a fuse necessitates the opening up of the plug, usually a very simple matter, but if the household consists of old ladies unskilled in the use of a screwdriver the architect is recommended to specify the Dormar and Smith type of plug, shown below, in which the fuseholder is exposed on the hinged contact pin. Fuse replacement is a perfectly safe operation, as the plug must be withdrawn from the socket for the purpose, but trouble sometimes arises from the fact that users will persist in fitting the wrong size of fuse, resulting in either immediate blowing if too small or inadequate protection if too large. However, it is usually easy to convince consumers that where a grey coloured fuse has come out another grey fuse must go in, and the brown spare fuse must not be used just because it is immediately available. The blowing of a local fuse affects the immediately-connected appliance only, and this can be withdrawn and replaced with something else; under the old method a blown fuse usually cut out several lighting points, with consequent inconvenience.



## The Ring Circuit

Although socket outlets have been concentrated upon in these notes the ring circuit may also be used for fixed appliances, such as immersion heaters in storage tanks, provided that their loadings do not exceed 3 kilowatts. In such cases a socket outlet is not used, but connection is made to the ring by means of what is known as a fused spur box, one example of which is shewn below; similarly, for connecting electric clocks the standard 13-amp. socket and plug is unnecessary, a special clock connector with lightly-rated fuse being available. It may be mentioned in passing that electric clocks of the synchronous type do not count as one outlet on the ring, their consumption being so small, and presumably anything up to a hundred clocks could be connected without transgressing the regulation requirements. The use of fixed appliances from the ring circuit represents a further installation economy, as it renders unnecessary the specifying of a special circuit for immersion heaters, so beloved of architects if recent specifications are any guide; the ring circuit is almost certain to pass somewhere near the storage tank, and the fused spur box can be used for connecting the heater.

Fixed appliances of this kind must, of course, count as one point when reckoning how many sockets to place on the ring circuit. Electric cookers, unless of very small types with loadings not exceeding 3 kilowatts, must not be connected to the ring, but, as hitherto, provided with their own heavier wiring circuit, but a point to note is—that if the ring circuit is used in the house then the socket outlet on the cooker control unit should also be of the 13-amp.

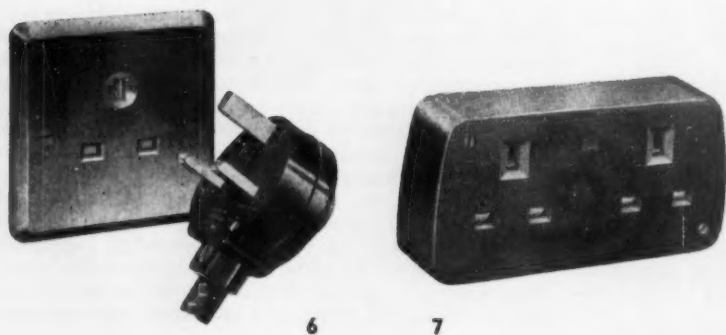
flat-pin type to ensure interchangeability throughout the installation; it is not uncommon to find flat pins everywhere except on the control panel, which retains the old round-pin socket, and this ties the kettle to the control unit. There is no reason why the happy client should not rejoice in the one size of socket outlet throughout the house, and to which his standard lamps, kettles, toasters, hair dryers or radiators may be connected indiscriminately, without hindrance, as each plug carries its own fuse, representing the ultimate in convenience.

The object of these notes is to point out to the architect that if he wants to take advantage of the economies represented by the use of the ring circuit and universal sockets and plugs he must forget that such things as 15-amp. socket outlets ever existed; once he mentions them in his specification he will get the cumbersome wiring arrangement shewn in Fig. 1, as under no circumstances may they be wired on a ring circuit. The paragraph should read: "All socket outlets throughout the house to be of 13-amps. capacity, to BS 1363, and wired on the ring circuit principle, in accordance with Regulation No. 114, 13th Edition, Clauses (A) and (B) (i) and (ii), and Table C. The immersion heater shall also be connected to this ring through an appropriate fused spur box." This circuit will include all the lighting and power socket outlets required in the house, and there will be no need to specify their differing uses.

The ring circuit may also be used for industrial installations, with socket outlets heavier than those required for domestic purposes, but as such application is outside the present article the approved arrangements will not be further discussed here.



1. Standard 13 amp. socket fitted with switch (Nettle Accessories Ltd.). 2. Alternatively, the Switch may be incorporated in the plug itself (M.K. Electric Ltd.). 3. The Dorman and Smith fused plug in which the fuse is carried on the hinged pin so that any opening of the plug for free replacement is obviated. (D.S. Plugs Ltd.). 4. Spur box with removable fuse bridge for connecting fixed appliances, such as immersion heaters, to the ring circuit (M. K. Electric Ltd.). 5. Connecting box with special small rating fuse, for use when synchronous electric clocks are connected to the ring circuit. (M. K. Electric Ltd.).



6. Typical 13 amp. socket outlet and plug to BS 1363, the live sockets being covered by shields when the plug is withdrawn. The use of this flat pin type is compulsory with the Ring Circuit. (Edison Swan Electric Co. Ltd.)

7. Double Socket outlet which counts as two points in assessing numbers to be carried in the Ring Circuit. (Clary Ltd.)



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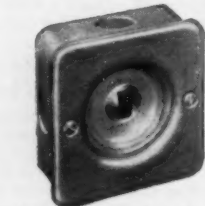
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## Industrial Notes

● The Board of Trade are inviting tenders for the purchase of about 16 million square feet of plywood from the Government Stockpile. The closing date for tenders will be Monday, September 3, 1956, at 10 a.m. Stock lists and forms of tender may be obtained upon application to the Board of Trade, C. & G. Division 8, Room 344, Lacon House, Theobalds Road, London, W.C.1. (Telephone Chancery 4411, Extn. 227).

● Pursuing a strong export drive, Mr. M. J. Reaney, Director and General Manager of Colt Ventilation Limited, is in Johannesburg on the first leg of his world trip. Mr. Reaney will be giving lectures on the applications of natural ventilation to all sorts of industry, before a specially invited audience of engineers, architects and South African industrialists. His talk, which is entitled: "Behind the Scenes in Ventilation", was shown at the Building Exhibition, London, last year. From South Africa, he flies on to Australia to have meetings with the Company's Australian Agents, Air Control Equipment Pty. Ltd., of Sydney, and thence to California to launch Colt's subsidiary, Colt Ventilation of America Inc., of 4652, Hollywood Boulevard, Los Angeles, 27, where at the beginning of October he will introduce the Colt System which is unique in the United States. Mr. Reaney will remain in Los Angeles until December and will be joined shortly after his arrival by one of Colt's most experienced and successful Senior Technical Consultants Mr. Hamilton M. McLean from Edinburgh, who is to take up permanent residence as the Colt Representative.

burgh, who is to take up permanent residence as the Colt Representative.

● The Institution of Works Managers, announces a list of awards open for competition amongst members of its Graduate Training Scheme in management. I.W.M. has taken the initiative in drawing up, in conjunction with Technical Colleges all over the country, a syllabus of training which includes theory and practice, and employs the resources of the Institution as a sponsoring agent through discussion groups, factory visits and the practical interchange of viewpoints via regular meetings by I.W.M. branches. An annual award of the Sir Henry Fildes Medal to the best student carries with it a prize to the value of £20 and prizes of £10 and £5 are awarded to runners-up. In addition, branches responsible for the supervision of the Graduate Training Scheme are empowered to make grants of further prizes to the best students in their own locality.

● The Marley Group will open London showrooms, in the autumn, at 251 Tottenham Court Road. In the meantime, the displays at Messrs. Alfred Goslett's, Charing Cross Road, have been discontinued, and all public enquiries can be made to the Head Office at Sevenoaks.

● The British Malleable Tube Fittings Association announces that all its members, representing the great majority of British Manufacturers of Malleable Tube Fittings have re-affirmed the policy which they decided upon earlier in the year, by which they will not

increase their prices during the remainder of 1956, unless forced to do so by appreciable increases in such production costs as are completely outside their control.

● Celotex Ltd., the largest fibreboard manufacturers in the country, who make sugar cane fibre insulation board, acoustical tiles and hardboard, announce that they will hold prices firm until the end of 1956 provided that no major adverse factors emerge.

● Mr. J. B. Bayley, A.M.I.Struct.E., has left the head office of Taylor Woodrow (Building Exports) Ltd., London, marketing agents for the Arcon range of prefabricated buildings, to be technical representative centred at Port of Spain, Trinidad, and responsible for the Caribbean area. From 1954 to earlier this year, he was stationed at Nigeria, where he has been replaced as technical representative by Mr. D. J. Hunter from head office.

● The Caterpillar Tractor Co. Ltd. announce the appointment of Denis H. Gilliver to the position of Secretary of the Company, and next year he will move to the new Caterpillar Tractor factory now under construction in Glasgow. At the same time other appointments are announced: Graham W. Almrott becomes Manager of the Company's operations at Desford, Leicester. The position of Merchandise Manager will be filled by Thomas V. J. Armstrong.

● John Mowlem & Co. Ltd., show a net profit for the past year of £277,091 which represents an increase of £21,703 on the previous year's result. A bonus of 2½ per cent. on the ordinary shares is announced in addition to the declared 10 per cent. dividend.

● Enfield Cables announce that their London Branch has moved from 1 The Colonnade, Victoria House, Southampton Row, London, W.C.1, to larger premises at 19/21 Store Street, London, W.C.1. (opposite The Building Centre).

● Dallow Lambert & Co. Ltd. announce that more commodious and more conveniently situated accommodation has now been taken at 6, Stratton Street, London, W.1. Telephone GROsvenor 4766.

● Horace W. Cullum & Co. Ltd., the acoustic and soundproofing consultants and contractors, have removed to larger and modernized premises at 58, Highgate West Hill, London, N.6. Telephone FITzroy 1221.

### Correction

On page 218 of the 16 August issue, the third paragraph in the letter from Mr. W. C. Moss should read: 150 gallons per week and not 1550.

"New-Range" lighting, by Crompton Parkinson Ltd., at the Dartford Works of Powers-Samas Accounting Machines Ltd. Approximately 16 foot candles are used with 5 ft., 80 W. single lamp open top reflectors mounted on roof trusses.





## NEW PRODUCTS

Holophane's new fluorescent refractor bowl, Fig. 1, for Group A roads is designed to accommodate a horizontal burning 250 w. or 400 w. fluorescent mercury discharge lamp type MBF/U. It has a smooth exterior with moulded high-accuracy internal prisms. Plan distribution is two-way axial or non-axial according to position of lamp or inclination of bowl. Vertical distribution: peak beam intensity at 75 deg. elevation, characteristics in high angle classification. Elliptical shape in plan, the bowl has sufficient depth to contain lamp in horizontal or inclined position.

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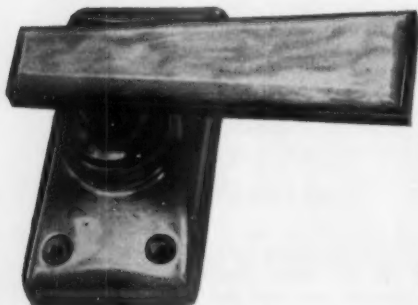
John Pickup Ltd. have introduced Fig. 2, plastic mortice latch lever type handle. The base for the handle is of strong diecast alloy in metal fitting to the base in which it turns with a light spring return. The plastic used is reinforced internally with steel. Available in a wide colour range with chromium plated escutcheon plate.

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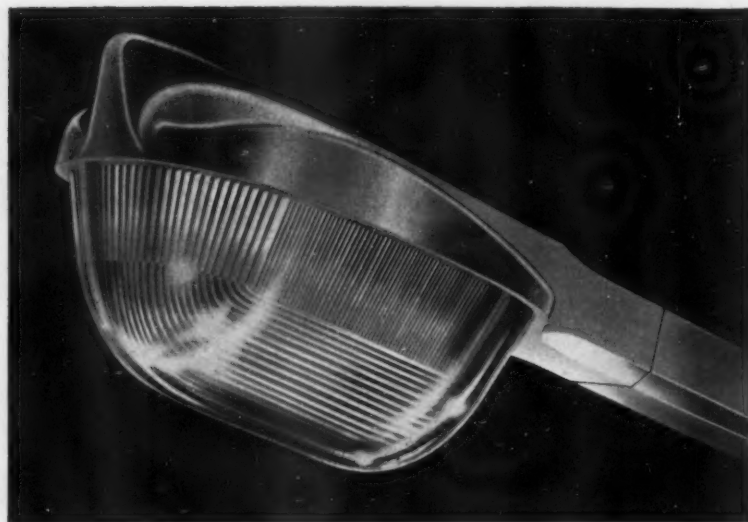
Burgess Products Co. Ltd. announce an improved version of the V3 Micro Switchette. The general specification and dimensions are unaltered but the new V3, Fig. 3, has a nylon plunger in place of the phenolic resin plunger used previously. The switchette as a whole will withstand rougher treatment since the elasticity of the nylon plunger can absorb shock without distortion or abrasion.

★

Joseph Freeman Sons & Co. Ltd., have produced a new concrete calculator of handy pocket size. It gives at a glance information on all the main standard cement mixes, at the turn of a dial. In addition to giving the proportions for each mix, the quantities required to make 1 cu. yd. of mixture and the yield of mixture per cwt. of cement, the calculator also provides information on colouring, frost proofing, hardening and waterproofing. It



2



is available at a cost of 3s. 6d. through Cementone stockists.

★

A new, tough and hardwearing tile which is claimed to possess non-slip properties, has been produced by A. Quilgotti & Co. Ltd. This tile, the Quil-Ferro, has a machined surface, which is of advantage where heavy steel trucks are employed. The tile is of cement base with the addition of a special new ferrous aggregate. Standard size 12in x 12in x 1in, finished in buff, red, green, grey, black or cream. Purpose-made stair tread nosing tiles with a moulded round edge are also available in sizes 6in x 6in x 1/2in and 9in x 4in x 1/2in.

★

Turner's Asbestos Cement Co. Ltd., have introduced "Turnall" Colour-glaze Finish. Due to its chemical composition it bonds to asbestos cement without affecting the cutting, handling or fixing of the material. The finish is durable and is available on Turner's roofing products, rainwater goods and soilpipes and also in double gloss finish on asbestos cement bath panels. A standard range of colours includes twelve different shades and black and white.

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Hurseal-Gulf have introduced a service for their hot water panel radiators which enables them to be bought off the shelf from builders' merchants ready for installation. Available in heights of 18in, 24in and 30in with heating surfaces from 5 to 30 sq. ft and in lengths from 20in to 65in. Standard tapping is 1/2in, top and bottom opposite ends but other sizes and positions of tappings may be ordered as required.

Fibreglass Ltd. have developed a special infill of glass fibre bitumen based composition for sandwiching between Turnall asbestos cement combined sheets. Comparatively the thermal transmittance of the sheets with infill is 0.4 B.Th.U. as against 0.7 B.Th.U. without infill. This reduction represents a saving of 1 lb of solid fuel per hour of heating period. The infill is simple to fit and does not affect the standard fixing of the asbestos cement combined sheet.

★

Cuprinol Sealer is a new water repellent wood preserver. It is claimed to lessen the absorption of water by wood by as much as 85 per cent, to minimise the swelling and contraction of timber which is exposed to moisture and to act as a preservative against decay and boring beetle attack. Treated wood must be thoroughly dry before applying paint, french polish or varnish. Applied by brush, spray or immersion. One gallon covers approximately 200 sq ft of rough sawn timber or 3-400 sq ft of planed wood.



3





*The primary consideration in this Secondary School*

**... a hard-wearing ACCOTILE floor!**



*The Illustrations of the Entrance Hall and Corridor above are at Flixton County Secondary School, Flixton, Nr. Manchester. Architect: G. Noel Hill Esq., F.R.I.B.A., M.T.P.I., County Architect, Lancs. Accotile Specialist Contractors: The Neuchatel Asphalt Co. Ltd., Manchester.*

School floors have to stand up to rough usage. That explains the popularity of Accotile for floor surfacing halls, classrooms and corridors in schools all over the Country.

Accotile can take heavy traffic — its colours extend throughout the mass, its surface is easy to clean, it's good for years and years of service. It can be laid on almost any sub-floor, even on concrete direct to earth. It is rot and vermin proof. When you compare all these advantages plus the infinite design possibilities of this modern thermoplastic tile, you will realise how Accotile can help in your plans.

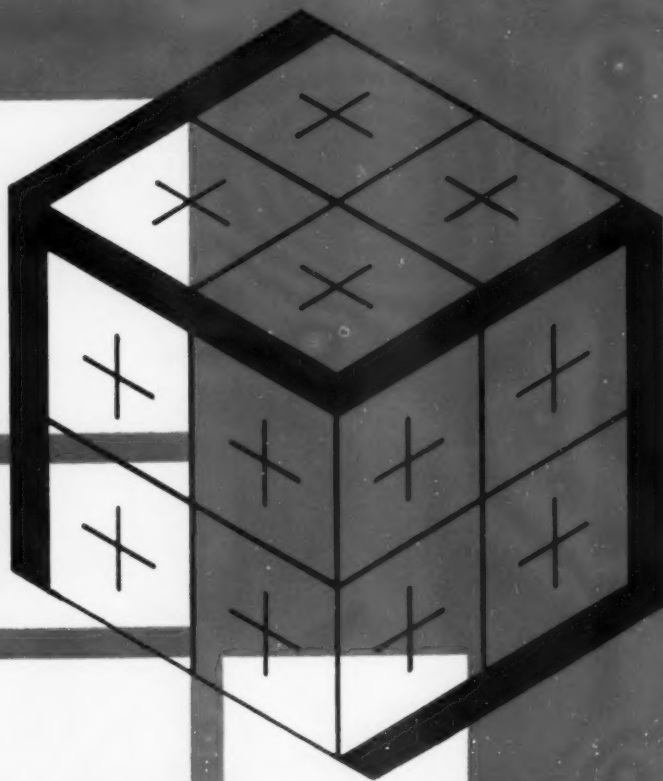
The Accotile range of colours has been increased to 26 — why not write for full details to: **ARMSTRONG CORK COMPANY LTD.**, Flooring Department, Bush House, Aldwych, London, W.C.2. Telephone: COVent Garden 1101.

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precision-cut ceiling panels

New specially-prepared, precision-cut ceiling panels, manufactured from ASBESTOLUX, are now available, with a smooth sanded surface. These panels are non-combustible, made to a tolerance of  $\pm \text{nil} - \frac{1}{16}$ " and all jig checked for accuracy and squareness before dispatch. They can be used to provide up to four hours fire protection to floors.

Available in  $\frac{1}{2}$ " and  $\frac{3}{8}$ " thickness—  
 4' x 4'; 4' x 2'; 3'4" x 2'; 3' x 2'; 2'8" x 2'; 2' x 2'.

Dry construction needs

# ASBESTOLUX

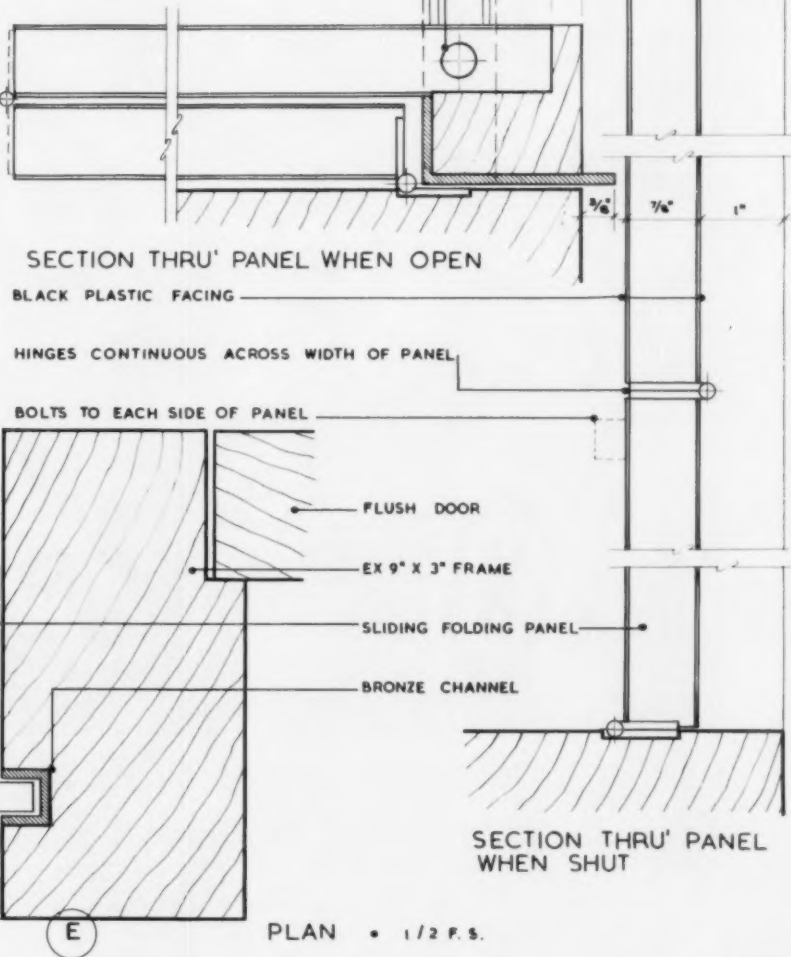
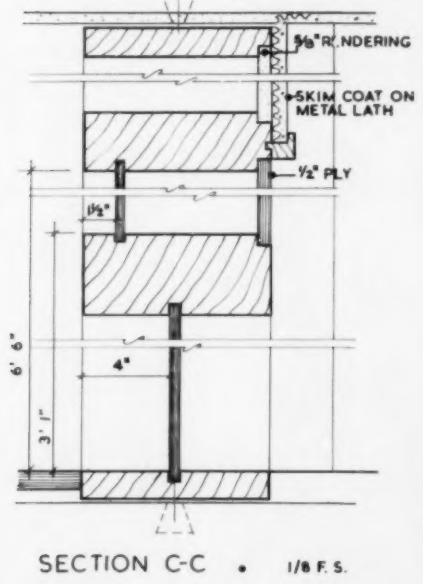
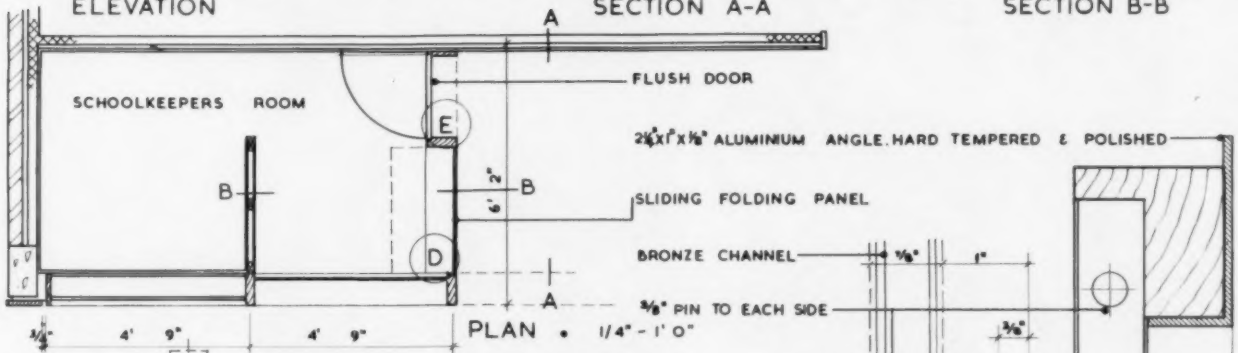
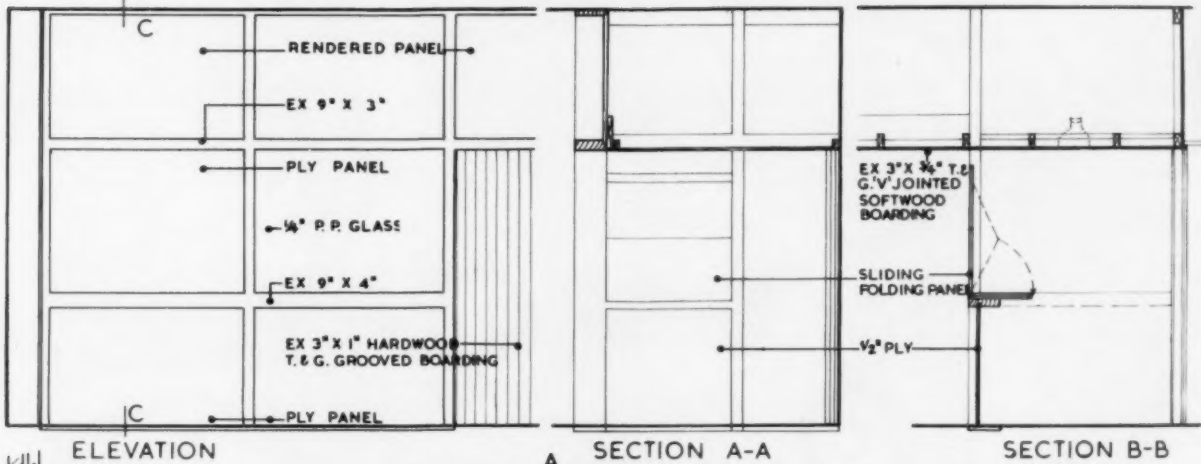
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 Eagle Buildings, 217 Bothwell Street, Glasgow C.2.  
 Tel: Central 2175.  
 11, Waterloo Street, Birmingham 2.  
 Tel: Midland 6565-6-7.



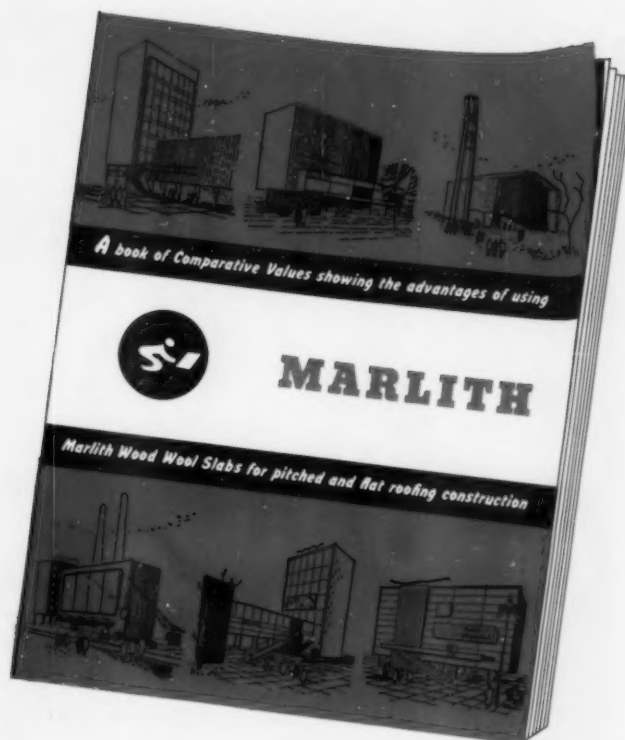






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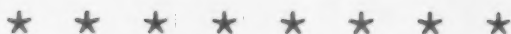
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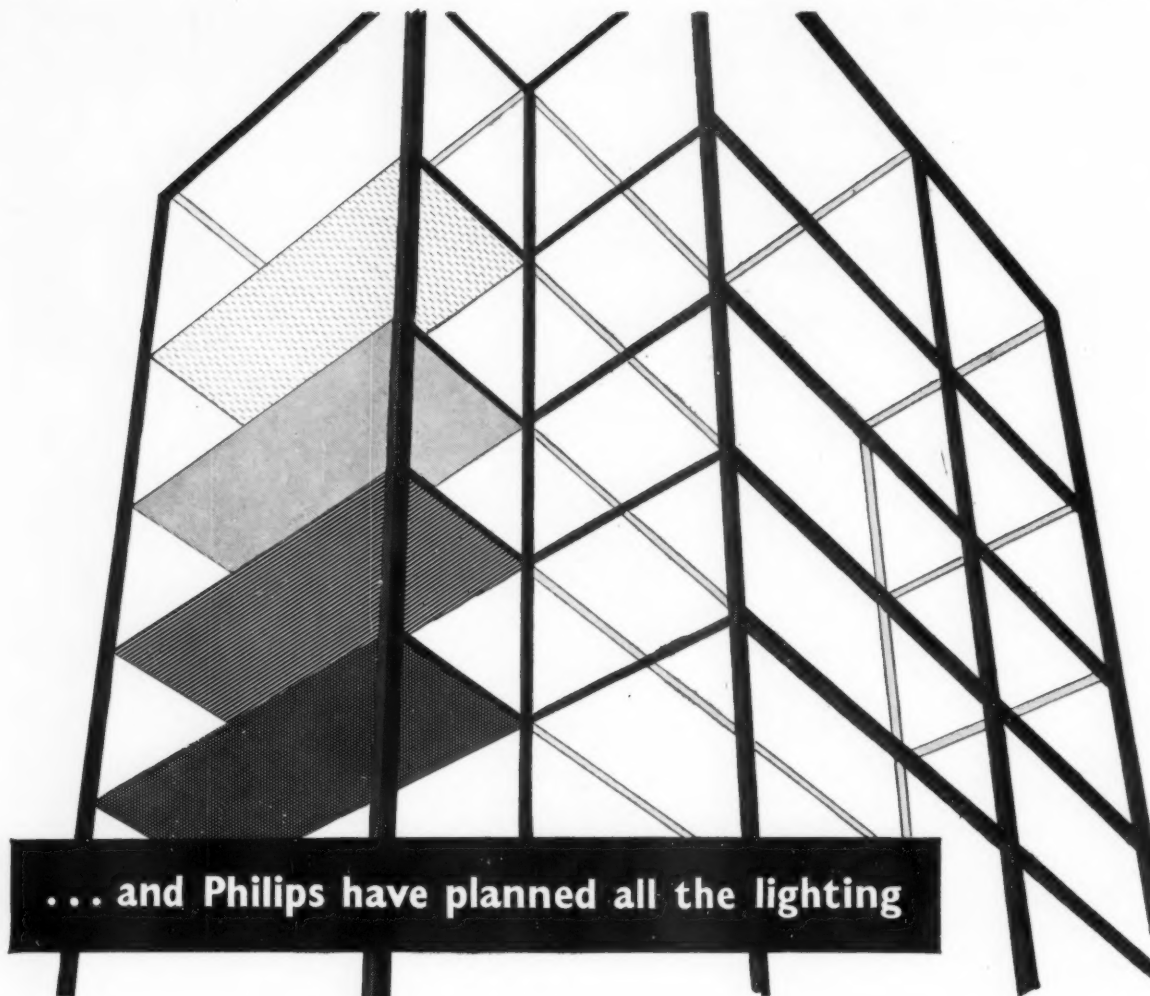
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DATE OF ISSUE 30 AUGUST, 1956



Notes below give basic data of contracts open under locality and authority which are in a bold type. References indicate: (a) type of work (b) address for application. Where no town is stated in the

## CONTRACT • NEWS •

### OPEN

#### BUILDING

**ALTRINCHAM, BOWDON, HALE AND DISTRICT JOINT CEMETERY BOARD.** (a) Erection of a crematorium, office block, swelling house, etc., together with reinforced concrete tower and other appurtenant works, at Whitehouse Lane, Dunham Massey, near Altrincham. (b) Board's Engineer, Dunham Mount, Dunham Road, Altrincham. (c) 5gns. (e) September 19.

**ANDOVER B.C.** (a) Erection of three pairs of houses and site works on Wolverdene site. (b) Borough Surveyor, Municipal Offices, "Beech Hurst," Weyhill Road. (c) 2gns. (e) September 20.

**BANBURY B.C.** (a) Erection of 22 houses in pairs and blocks of four, at Neithrop site, Section 2, off Park Road (Scheme No. 35). (b) Borough Engineer, Municipal Buildings, Marlborough Road. (c) 3gns. (e) September 11.

**BIRMINGHAM TAME AND REA DISTRICT DRAINAGE BOARD.** (a) Erection of the superstructure of two pumphouses at the Board's Sewage Disposal Works, Kingsbury Road, Minworth, near Birmingham. The successful firm will be nominated as a sub-contractor subject to the concurrence of the main contractors, Tarmac Limited, Wolverhampton. (b) Board's Engineer, Rookery Park, Erdington, Birmingham, 24. (c) 2gns. (e) September 24.

**BOURNEMOUTH B.C.** (a) Contract No. W.H. 18. (c) Erection of two blocks of three houses, one block of four flats, and two blocks of four flats, on the West Howe estate. (b) Borough Architect, Room 106, Town Hall. (c) 2gns. (e) September 18.

**BRIGHTON B.C.** (a) Adaptations at Queen's Park secondary school. (b) Borough Surveyor, 26-30 King's Road. (c) 1gn. (e) September 19.

**BUCKS STANDING JOINT COMMITTEE.** (a) Erection of (1) four police houses at Hivings Hill, Chesham; (2) two houses and office at Elms Road, Chalfont St. Peter; and (3) two houses and layby at rear of Dean Street, Marlow. (b) County Architect, County Offices, Aylesbury. (c) 2gns. each contract. (d) September 7. (e) October 1.

**BUCKS STANDING JOINT COMMITTEE.** (a) Erection of two senior officers' bungalows at Farnham Road, Slough. (b) County Architect, County Offices, Walton Street, Aylesbury. (d) September 7. (e) October 1.

**CARDIFF C.C.** (a) Erection of (Group No. 14) 26 houses and bungalows; (Group No. 22) 17 dwellings comprising houses and two storey flats in blocks of four; (Group No. 30) 45 houses; (Group No. 31) 25 houses; and (Group No. 33) 25 bungalows; all at Llanrumney; and (Group No. 5) 11 dwellings at Gabalfa. (b) City Surveyor, City Hall. (c) 2gns. (e) September 17.

address it is the same as the locality given in the heading (c) deposit (d) last date of application (e) last date and time for submission of tenders. Full details of contracts marked \* are given in the advertisement section.

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**DARLINGTON B.C.** (a) Erection of 50 houses at Branksome estate. (b) Borough Architect, Central Buildings. (c) Ign. (e) September 10.

**DARTFORD R.C.** (a) Erection of 6 dwellings at Forge Lane, Horton Kirby; 22 dwellings at Balmoral Road, Sutton at Hone; 20 dwellings at Lower Road, Hextable; 24 dwellings at Daltons Road, Crockenhill; and 8 dwellings at West Kingsdown. (b) Council's Engineer, Council Offices, West Hill, Dartford.

**DURHAM C.C.** (a) Erection of canteen scullery at Boldon Colliery North Road School. (b) County Architect, South Street. (d) September 5.

**DURHAM C.C.** (a) Carrying out proposed alterations and improvement at Ferryhill Station County School. (b) County Architect, South Street. (d) September 5.

**ECCLES B.C.** (a) Erection of 26 houses off Bedford Road, Ellesmere Park. (b) Borough Engineer, Town Hall Annexe, Irwell Place. (c) 2gns. (e) September 24.

**HARROGATE B.C.** (a) Conversion of Nos. 5 and 6 Promenade Square, into self-contained flats and maisonnettes. (b) Borough Engineer, Municipal Offices. (e) September 8.

**HEMEL HEMPSTEAD DEVELOPMENT CORPORATION.** (a) Applications are invited from Building Contractors capable of undertaking large, medium and small Contracts, to be included in the Development Corporation's revised Register of Approved Contractors. (b) The General Manager, Westbrook Hay.

**HUNGERFORD R.C.** (a) Erection of 7 old people's bungalows in Dredges Row, Kintbury, including demolition of existing cottages on the site and laying of approx. 350 sup. yards, of new concrete carriage-way. (b) Council's Surveyor, The Priory. (c) £2 by cheque, payable to Council. (e) September 12.

**HUNTINGDONSHIRE EDUCATION COMMITTEE.** (a) Erection of a general purposes room, 3 additional classrooms, servery and ancillary accommodation at St. Neots Technical Institute. (b) County Architect, County Buildings. (c) £2. (e) September 10.

**KEIGHLEY B.C.** (a) Construction of foundations, floor slab, site works, and sundry other works in connection with proposed new infant school for 240 pupils at Guard House, No. 2 Estate. (b) Borough Architect, College Street. (c) 2gns. (e) September 10.

**KINGSTON UPON HULL C.C.** (a) Erection of 201 dwellings and 20 garages at Great Field Estate. (b) City Architect, Guildhall. (c) Ign. (e) September 7.

**LANCASHIRE C.C.** (a) Carrying out alterations to nursery block to form occupational centre at Farnworth, Hollins Lane Cottage Homes. (b) County Architect, P.O. Box 26, County Hall, Preston, quoting Ref. A/MG. (c) £2 by cheque payable to Council. (d) September 3.

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Prospectus post free on application.  
Telephone: North 1686.

**LONDON—WALTHAMSTOW B.C.** (a) Conversion of Nos. 5, 7, 9 and 11 Pembroke Road, Walthamstow, E.17, into six flats. (b) Borough Architect, Town Hall, Forest Road, E.17. (c) 2gns. (e) September 14.

**MEXBOROUGH U.C.** (a) Erection of 116 dwellings on the Highwood estate. (b) Council's Architect, Council Offices, Adwick Road. (c) 3gns. (e) September 7.

**MIDDLETON B.C.** (a) Erection of brick-built mess room and sanitary block at the Corporation Depot, Suffolk Street. (b) Borough Surveyor, Town Hall, Middleton, near Manchester. (e) September 24.

**NEWMARKET U.C.** (a) Erection of 7 blocks of four houses on the new site off Chapel Street, Exning. (b) Council's Architect, Council Offices, Severals House. (c) 2gns. (e) September 11.

**N. IRELAND—ANTRIM.** (a) Erection and completion of proposed new toilet block at St. Joseph's Primary School, Crumlin, Co. Antrim. (b) McLean and Forte, 37 Malone Road, Belfast. (c) 3gns. by cheque. (e) September 10.

**N. IRELAND—CO. DOWN.** (a) Erection of a new primary school at Railway Street, Ballynahinch, for the Very Rev. Canon CcClory, Parochial House, Ballynahinch. (b) W. H. McEvoy, 73 May Street, Belfast. (c) 5gns. (e) September 21.

**N. IRELAND—LARNE.** (a) Carrying out alterations and additions to existing buildings at Cairndu, near Larne, to form a clubhouse for the Larne Town Golf Club. (b) Maurice Davison, 46 Main Street, or McCarthy and Liburn, 47 Scottish Provident Buildings, Belfast. (c) 3gns. (e) September 12.

**N. IRELAND—LURGAN.** (a) Carrying out alterations and additions to Halftown Primary School, Lurgan, for Rt. Rev. Mons E. Campbell, St. Peter's Presbytery, Lurgan. (b) W. H. McEvoy, Ulster Bank Chambers, 73 May Street, Belfast. (c) 5gns. (e) September 14.

**ORRELL U.C.** (a) Erection and completion of 12 bungalows on the Moor Road estate. (b) Council's Engineer, Council Offices, Orrell Post, Wigan. (e) September 10.

**PETERBOROUGH C.C.** (a) Erection of (1) 26 bungalows in six blocks of four and one block of two; and (2) three pairs of houses. (b) City Engineer, Town Hall. (c) 2gns. (e) September 7.

**PRESCOT U.C.** (a) Erection of 28 aged persons' flats on a site adjoining Grosvenor Road. (b) Messrs. Gornall, Kelly and Partners, 155 The Albany Old Hall Street, Liverpool, 3. (c) 2gns. (e) September 21.

**PUDSEY B.C.** (a) Separate trades in connection with the erection of 42 flats at Old Road, Farsley. (b) Borough Surveyor, Town Hall. (c) 2gns. each trade. (e) September 19.



**ROTHWELL U.C.** (a) Erection of 8 pairs of houses on the Harrington Road site. (b) Council's Surveyor, Manor House, Rothwell. (c) 2gns. (e) September 11.

**SALISBURY AND WILTON R.C.** (a) Erection of 12 dwellings together with a small amount of fencing, and construction of a footpath, at Barford St. Martin. (b) Council's Clerk, The Council Offices, 26 Endless Street, Salisbury. (c) 2gns. (e) September 13.

**SCOTLAND—DUMFRIES ROYAL B.C.** (a) Erection of 69 houses at Lochside 2nd Development, 2nd Section. (b) Town Clerk, Municipal Chambers. (d) September 3. All or separate trades.

**SPILSBY R.C.** (a) Erection of an old persons' residence (six flats) and pair of bungalows at Station Road, Willoughby. (b) Council's Engineer, Toynnton Hall. (c) 3gns. (e) September 8.

**TAUNTON R.C.** (a) Erection of (Contract No. 1) 39 houses; (Contract No. 2) 18 houses and 12 bungalows; and (Contract No. 3) 42 houses and Greenway, Bishops Lydeard. (b) Messrs. H. S. W. Stone and Partners, 20 The Crescent. (c) 2gns. (d) September 1.

**YEOVIL B.C.** (a) Erection of one pair of bungalows at Wingate Avenue, on the Milford estate. (b) Town Clerk, Municipal Offices, giving the names of the persons or authorities for whom similar work has been carried out. (d) September 7.

**YORK C.C.** (a) Carrying out proposed extension of offices at the City Treasury, 1 and 2 St. Leonard's Place, York. (b) City Architect, 8 St. Leonard's Place. (c) £1. (e) September 10.

## PLACED

*Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.*

**HERTS C.C.** (1) Completion of Traveler's Lane Secondary School. (2) Hatfield. (3) Y. J. Lovell and Son Ltd., Gerrards Cross, Bucks. (4) £94,850.

**PENARTH B.C.** (1) Erw's Delyn School for Handicapped Children. (3) William Cowlin and Son Ltd., 113 Cathedral Road, Cardiff. (4) £146,000.

**LONDON, N.W.** (1) Offices for Cheeseborough-Ponds Ltd. (2) Victoria Road, N.W.10. (3) Taylor Woodrow Construction Ltd., Southall, Middlesex. (4) £100,000.

**CARLISLE.** (1) Restoration work on Carlisle Cathedral. (3) John Laing and Son Ltd., Dalston Road, Carlisle.

**STANWELL, MIDDLESEX.** (1) Erection of "Happy Landings" licensed house, for Barclay, Perkins and Co. Ltd. (3) Wilson, Lovatt and Sons, Ltd., 16 Grosvenor Crescent, London, S.W.1. (4) £30,000.

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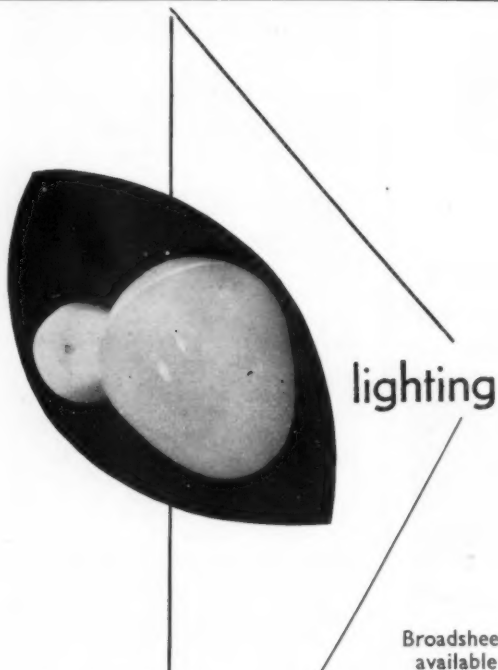
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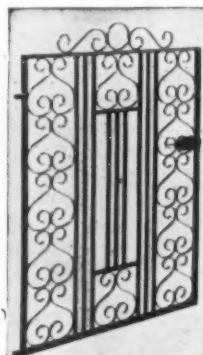
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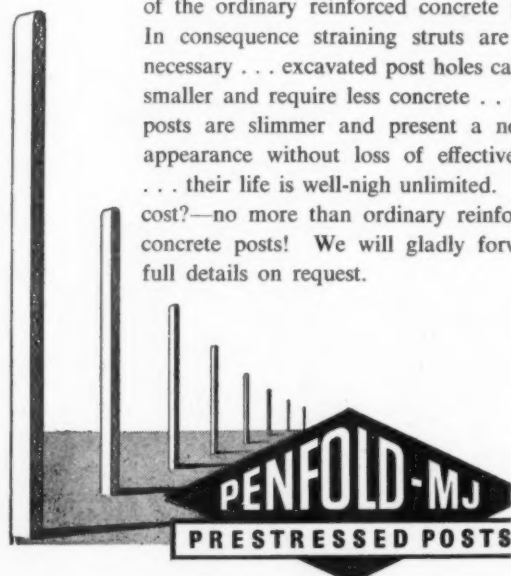
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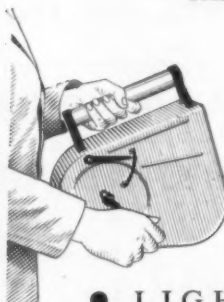
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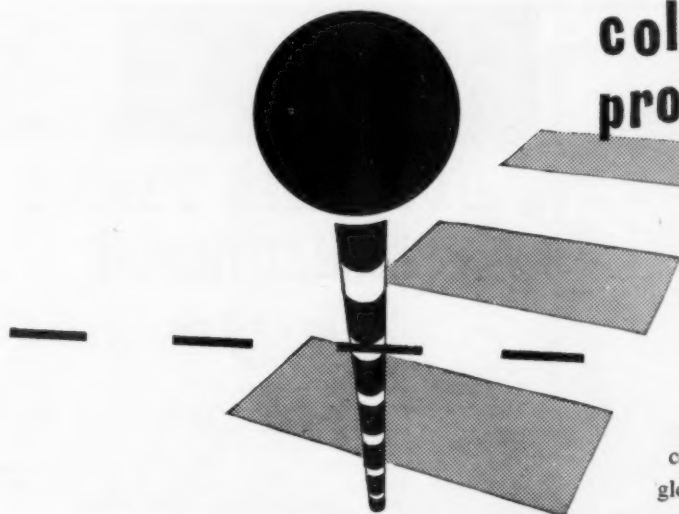
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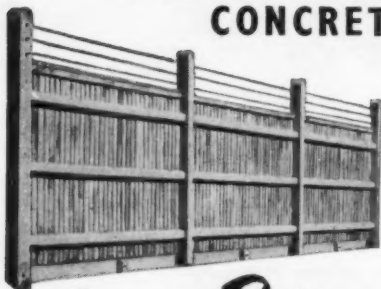
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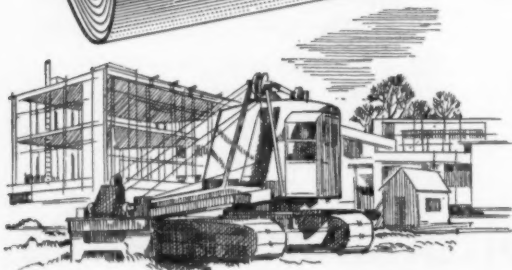
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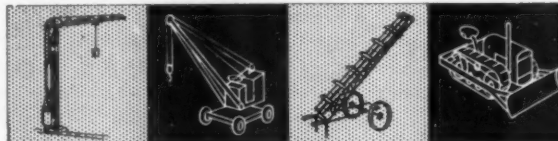
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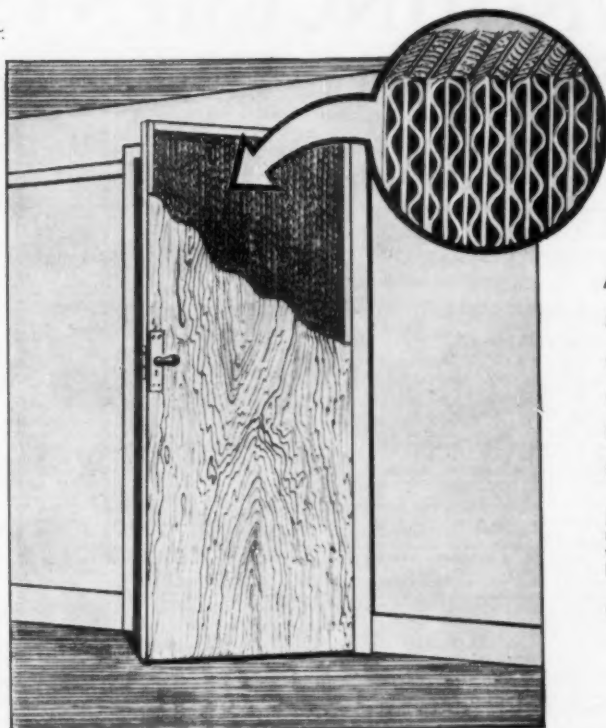
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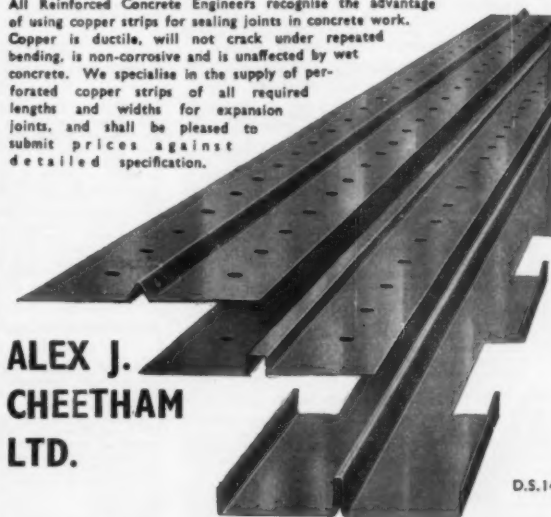
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### APPOINTMENTS

#### COUNTY BOROUGH OF MIDDLESBROUGH

APPLICATIONS are invited for the following appointments in the Borough Engineer and Surveyor's Department, involving the preparation and execution of schemes in a large constructional and development programme.

- Principal Assistant Architect, A.P.T. VI (£890-£1,080). Must be A.R.I.B.A. or similar qualification and have good experience in design and supervision.
- Senior Assistant Architect, A.P.T. V (£790-£970). Must be A.R.I.B.A. or similar qualification with good experience.
- Assistant Architects (4), Special Scale-A.P.T. IV (£690-£885). Should have passed final, or substantial parts, of R.I.B.A. or equivalent.
- Quantity Surveying Assistants (2), A.P.T. I-II (£530-£675). Practical experience in quantity surveying work following completion of recognized course of training.
- Chief Town Planning Assistant, A.P.T. V (£795-£970). Must be A.M.T.P.I. and have a recognized qualification in Engineering, Architecture or Surveying, and experience in Town Planning practice.
- Senior Assistant Building Surveyor, A.P.T. V (£795-£970). Must be A.R.I.C.S. or A.M.I. Mun.E. and have had good experience in design and erection of new buildings and maintenance, adaptation and supervision of property.
- Assistant Building Surveyor, Special Scale-A.P.T. IV (£690-£885). Should have passed final, or substantial parts, of R.I.C.S. or Inst.Mun.E.
- Draughtsman, Misc. III-IV (£445-£575). Applicants must be competent draughtsmen.

All posts under N.J.C. Conditions and Superannuation Scheme. Starting salaries within the Grades will be determined according to qualifications and experience which need not necessarily have been gained in the Local Government Service.

All posts on Special Scale-A.P.T. IV are subject to automatic acceleration of increments amounting to £75 within the scales on attainment of corporate membership of the appropriate professional body, in addition to passing the final examination.

HOUSING ACCOMMODATION will be considered if the circumstances of the candidates and the post warrant.

Application forms from J. A. Kenyon, M.I.C.E., M.I.Mun.E., M.T.P.I., Borough Engineer and Surveyor, Municipal Buildings, to be returned, together with copies of two recent testimonials, by Tuesday, 11 September, 1956. [2651]

#### URBAN DISTRICT COUNCIL OF CORBY

##### SENIOR ARCHITECTURAL ASSISTANT GRADE A.P.T. IV (£710-£885)

APPLICATIONS are invited for the above appointment in the Architectural Section of the Engineer and Surveyor's Department.

Applicants must be Registered Architects and should have considerable experience in design, construction and contract administration as applied to contracts for Public Buildings and local authority housing.

The provisions of the Local Government Superannuation Acts, 1937/53 will apply to this appointment.

Housing accommodation will be made available to the successful candidate if married.

Forms of application may be obtained from the undersigned, to whom they should be returned not later than the first post on Friday the 14th September, 1956.

G. B. BLACKALL,  
Clerk of the Council.

Council Offices,  
Corby, Northants.  
14 August, 1956. [2654]

AIR Ministry Works Designs Branch requires experienced in planning preparation of working drawings and details for permanent and semi-permanent buildings.

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### APPOINTMENTS—contd.

#### SURREY COUNTY COUNCIL

##### EDUCATION DEPARTMENT KINGSTON SCHOOL OF ART

APPLICATIONS are invited for the following appointments in the Department of Architecture to commence with the new session 1956:

- Part-time Studio Instructor to instruct in the basic principles of general design, and also to assist with the supervision of the general architectural studies of the First Year students.
- Part-time Instructor in Structural Mechanics (Intermediate Stage) for one seven-hour day weekly.
- Part-time Instructor in Acoustic Design and Sound Control for one seven-hour day weekly.

Applicants should be well qualified professionally, have had varied practical experience and be actively engaged in their profession. Previous teaching experience will be an additional qualification.

Salary for these appointments will be in accordance with the rates approved by the Education Committee. The appointment of the Studio Instructor will be up to a maximum of three seven-hour days weekly.

Application form and further particulars including details of part-time rates of salary may be obtained upon receipt of a stamped addressed envelope, from the Registrar, Kingston School of Art, Knight's Park, Kingston on Thames, Surrey. [2658]

#### LONDON ELECTRICITY BOARD

##### SENIOR DRAUGHTSMEN

A VACANCY exists for a Senior Draughtsman in the Southern Sub-Area (based at Beckenham, Kent). Applicants should have a sound general and technical education to Ordinary National Certificate standard in Building, and be capable of supervising draughtsmen.

A vacancy exists for a Senior Draughtsman in the Hampstead/Willesden district. Applicants should have a good general and technical education in Electrical Engineering and building construction and experience in a mains records office dealing with systems of all voltages up to 11kV, and be capable of supervising draughtsmen.

These posts are graded under Schedule "D" of the National Joint Board agreement as Grade 5—£735 to £840 per annum inclusive.

Application forms obtainable from Personnel Officer, 46 New Broad St., London, E.C.2. Please state the particular vacancy preferred and quote ref. PER/2229/30/AA. [2670]

#### SHEFFIELD REGIONAL HOSPITAL BOARD

APPLICATIONS are invited from persons with experience in a builder's or quantity surveyor's office for the post of Regors' Clerk in the Architectural Department of the Board's Headquarters. Salary scale is £425 (at age 24 or over) x 15(3) x 20(5) x 25(1)—£595. The appointment is subject to the Whitley Council terms and conditions of service, to the National Health Service (Superannuation) Regulations, and to one month's notice on either side. Applications stating age and experience, together with the names of three referees, should reach the Secretary to the Board, Fulwood House, Old Fulwood Road, Sheffield III by 15th September, 1956. [2675]

#### METROPOLITAN BOROUGH OF ST. MARYLEBONE

SENIOR PLANNING ASSISTANT required in A.P.T. VI (£880-£1,080 p.a.), plus "London Weights".

Applicants should have passed Final Examination of Town Planning Institute and be experienced in practical application of Town Planning. Successful candidate will be required to deal with all Planning matters concerning the Metropolitan Borough Council. Experience in supervision of staff and preparation of Reports to Committee and attendance thereto an advantage. Permanent appointment subject to medical examination and Superannuation Scheme.

Applications, stating age, qualifications, full details of experience and positions held, with names of three referees, to Establishment Officer, Town Hall, St. Marylebone, W.1, by September 7, 1956. [2668]

### APPOINTMENTS—contd.

#### PADDINGTON BOROUGH COUNCIL

##### HOUSING DEPARTMENT

APPLICATIONS are invited for the following permanent posts (which are subject to N.J.C. conditions) at salaries within the scales shown according to qualifications and experience—

- SENIOR ASSISTANT ARCHITECT (A.P.T. VI £910-£1,110 p.a.). Candidates (A.R.I.B.A.) with a personality likely to obtain results with other staff, should have practical experience of building work, in the design and supervision of housing schemes, including multi-storey flats. Town planning would also be an advantage. (Quote "A.299.")
- ARCHITECTURAL ASSISTANT (two posts). (A.P.T. IV £740-£915 p.a.). Candidates should be inter-A.R.I.B.A., capable of preparing working and detail drawings, competent draughtsmen and possess good knowledge of building by-laws, housing manual standards and modern construction techniques. (Quote "A.300.")
- ASSISTANT QUANTITY SURVEYOR (two posts). (A.P.T. IV £740-£915 p.a.). Candidates should be experienced in estimate preparation, working up, abstracting, billing, site measurement and working up to final account stage. Standard required inter-R.I.C.S. (quantities sub-division). (Quote "A.301.")
- DRAUGHTSMAN (A.P.T. I £560-£640) suitable for probationer member R.I.B.A. (Quote "A.302.")

Applications (quoting appropriate reference) should state age, qualifications, experience, present and past appointment, names and addresses of three referees and should reach me by September 17, 1956.

W. H. BENTLEY,  
Town Clerk.

Town Hall,  
Paddington Green, W.2. [2671]

#### COUNTY BOROUGH OF ROCHDALE

APPLICATIONS are invited for the appointment of Assistant Architect Grade A.P.T. IV (£710-£885) in the Architect's Department of the Borough Surveyor's Office.

Applications will be considered from Candidates who are not fully qualified, on Grade III (£640-£765) proceeding to Grade IV, when the necessary qualification is obtained. The commencing salary will not necessarily be the minimum of the Grade and will be fixed according to ability and experience.

The appointment will be subject to the National Scheme of Conditions of Service, the Local Government Superannuation Acts, and to passing a medical examination. Canvassing is prohibited and applicants must disclose whether they are related to any member or Senior Official of the Council.

Housing accommodation will be provided by the Council in appropriate circumstances. Applications, stating age, qualifications, training and experience, together with the names and addresses of two persons to whom reference can be made, and endorsed "Assistant Architect" must be delivered to the Borough Surveyor, Town Hall, Rochdale, not later than 9 a.m. on Wednesday the 19th September, 1956.

M. B. MOORE,  
Town Clerk.

[2673]

ARCHITECTS (Senior) required, also Architectural Assistants for building construction. Good salaries. Pensionable posts. Experienced men with practical and creative ideas should write giving details of experience, qualifications and salary required to Personnel Manager, Taylor Woodrow Construction Ltd., Ruislip Road, Southall, Middlesex. [2676]

BOROUGH OF TWICKENHAM. Applications are invited for a Senior Assistant Architect, salary A.P.T. V (£785-£970), plus London Weights. The commencing salary will be on the minimum of the grade and candidates must have passed the R.I.B.A. Final. Housing accommodation available. Applications stating age, qualifications, experience, etc., together with the names of two referees should be sent to the Borough Engineer, Municipal Offices, Twickenham, not later than September 8, 1956. N.J.C. Conditions will apply and superannuation payable. Canvassing will disqualify and applicants must state whether they are related to any member of the Corporation or senior officer.

W. H. JONES,  
Town Clerk.

Municipal Offices, Twickenham.  
August 21, 1956. [2697]



## APPOINTMENTS—contd.

## COUNTY BOROUGH OF EAST HAM

BOROUGH ENGINEER'S DEPARTMENT  
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Further details and application forms returnable by September 14, 1956 from the Town Clerk, Town Hall, East Ham, E.6. [2689]

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Blackwell, Wyckham, Ltd.	—	Falkirk Iron Co. Ltd., The	—	Mason, E. N., & Sons Ltd.	—	The	—
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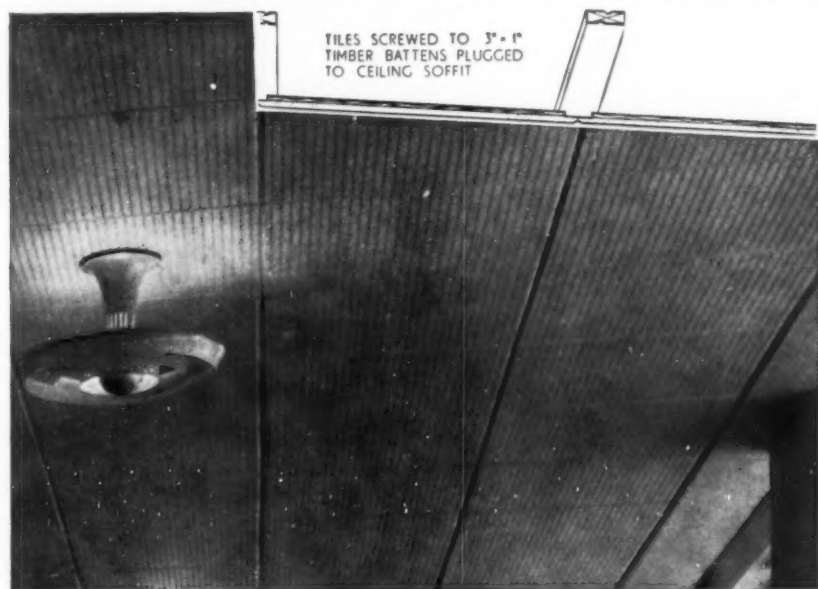
# SUPACOUST

## PERFORATED ACOUSTIC TILE

"SUPACOUST" tiles are manufactured from "Superplaster" (a fine Gypsum plaster admixed with "Superite" the plaster hardener).

"SUPACOUST" tiles combine high sound absorption with all the advantages of the plaster panels.

- EXCELLENT ACOUSTICS
- BEAUTIFUL DECORATIVE FINISH
- SIMPLE FIXING
- HYGIENIC SURFACE
- NON-COMBUSTIBLE



Typical Installation of "Supacoust" Tiles

### Performance

Frequency (Cycles per second)	125	250	320	400	500	1000	2000	4000
SUPACOUST TILE with glassfibre quilt backing fixed on timber battens	0.25	0.55	0.65	0.65	0.60	0.35	0.25	0.20
SUPACOUST TILE with 1in wood wool backing	0.10	0.30	0.45	0.55	0.60	0.30	0.40	0.25
SUPACOUST TILE fixed direct on plaster board	0.15	0.10	*	*	0.20	0.35	0.50	0.60
SUPACOUST TILE left open at back	0.90	0.35	*	*	0.75	0.60	0.15	0.25

\* Not tested at this frequency.

### Sizes

Standards (supplied from stock) 24in x 24in x  $\frac{5}{8}$ in 24in x 12in x  $\frac{5}{8}$ in 30in x 15in x  $\frac{5}{8}$ in  
Other sizes to specification.

### Weight

Standard Tiles: 2½lb per sq. ft.

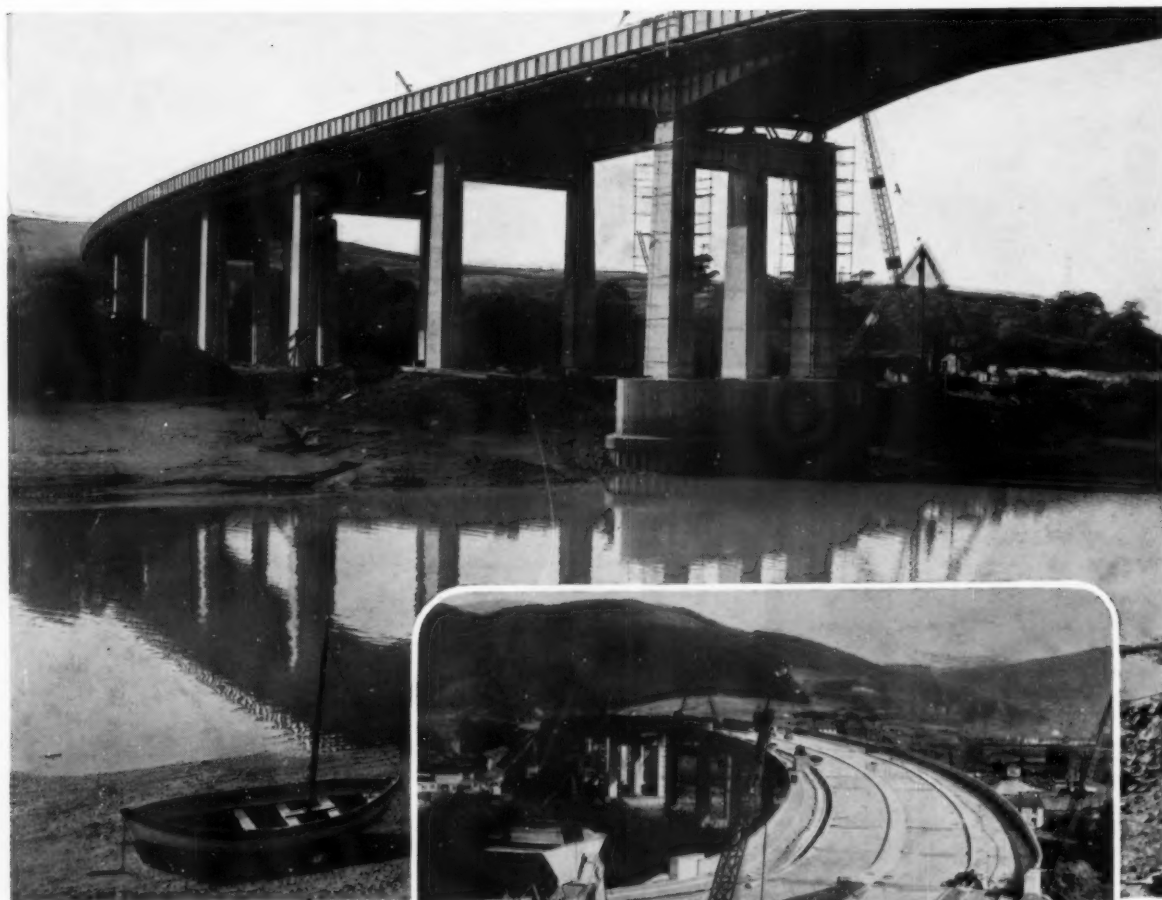
If Vermiculite Plaster is used: 1½ — 2lb per sq. ft.

"Supacoust" tiles can be fixed to any surface by screwing. It is normal to fix only at the corners so that support for the standard panels is required only at 2ft 0in centres of say, 3in x 1in timber battens. Quotations will be gladly given for either (a) Supply to the Site only, for fixing by the General Contractor, or (b) Supply and fixing as a Subcontract.

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